STATE OF MINNESOTA DISTRICT COURT 09:09:02

COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT

- - - - - - - - - - - - - - - - - - - - - - - - - - -

THE STATE OF MINNESOTA,
BY HUBERT H. HUMPHREY, III,
ITS ATTORNEY GENERAL

AND

BLUE CROSS AND BLUE SHIELD OF
MINNESOTA,
PLAINTIFFS,
FILE NO. C1-94-8565

VS.

PHILLIP MORRIS INCORPORATED, R.J.
REYNOLDS TOBACCO COMPANY, BROWN &
WILLIAMSON TOBACCO CORPORATION,
B.A.T. INDUSTRIES P.L.C., LORILLARD
TOBACCO COMPANY, THE AMERICAN
TOBACCO COMPANY, LIGGETT GROUP, INC.,
THE COUNCIL FOR TOBACCO RESEARCH-U.S.A.,
INC., AND THE TOBACCO INSTITUTE, INC.,
DEFENDANTS.
- - - - - - - - - - - - - - - - - - - - - - - - - - -

VOLUME #

DEPOSITION OF

KEVIN J. GRAHAM, M.D.

July 30, 1997

9:00 a.m.

REPORTED BY: KATHY L. SOPER
RPR, CSR, CALIF. CSR 8519
620 PLYMOUTH BUILDING
MINNEAPOLIS, MINNESOTA 55402



DEPOSITION OF KEVIN J. GRAHAM, M.D., taken

http://legacy.library.ucsf.edu/id/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

at the Law Offices of Robins, Kaplan, Miller & Ciresi, 2800 LaSalle Plaza, Minneapolis, Minnesota 55402, commencing at 9:00 a.m., on the 30th day of July, 1997, before Kathy L. Soper, a Notary Public and Certified Professional Reporter.

* * * *

A P P E A R A N C E S

On Behalf of the Plaintiffs:

Robins, Kaplan, Miller & Ciresi
2800 LaSalle Plaza
800 LaSalle Avenue
Minneapolis, Minnesota 55402

BY: Jon Eisberg

On Behalf of Philip Morris Incorporated:

Dorsey & Whitney
Pillsbury Center South
220 South Sixth Street
Minneapolis, Minnesota 55402-1498

BY: Mark Ginder

On Behalf of Lorillard Tobacco Company:

Shook, Hardy & Bacon
One Kansas City Place
1200 Main Street
Kansas City, Missouri 64105

BY: Edward H. Sheppard
Carol J. Smith



INDEX

EXAMINATION BY: PAGE

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

KEVIN GRAHAM, M.D.,

called as a witness, was duly sworn and testified as follows:

EXAMINATION 09:09:20

BY MR. SHEPPARD:

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Would you please state your name for the record. 09:09:22
A. My name is Dr. Kevin J. Graham, M.D. 09:09:26
Q. And you are aware that you have been identified by the plaintiffs in this lawsuit which we are dealing as an expert witness? 09:09:28 09:09:32 09:09:34
A. Yes. 09:09:34
Q. Are you personally acquainted with any of the other expert witnesses, medical clinicians who have been identified? 09:09:38 09:09:42 09:09:42
A. Yes. 09:09:42
Q. Which ones are you personally acquainted with? 09:09:44
A. Dr. Scott Davies and Dr. Barbara Bowers. 09:09:50
Q. And the source of that acquaintanceship? 09:09:54
A. Dr. Scott Davies is a staff pulmonary physician at Hennepin County Medical Center. As I did my residency there I became familiar with him at that time. 09:10:00 09:10:04 09:10:06 09:10:06
Dr. Barbara Bowers is a clinical oncologist who we have, occasionally, common 09:10:12 09:10:18



patients in the setting at Abbott Northwestern Hospital. 09:10:22
Q. Okay. She is on the staff at the same hospital where you are principally on staff? 09:10:24 09:10:26
A. Yes, sir. 09:10:28
Q. Are you aware she has given a deposition in this case recently? 09:10:30 09:10:30
A. Yes, sir. 09:10:30

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Have you talked with her since her deposition? 09:10:32
A. I saw her in the hall yesterday. 09:10:36
Q. And did you speak with her at that time? 09:10:38
A. Yes, sir. 09:10:38
Q. Would you tell me the content of that conversation as it related to the deposition. 09:10:40 09:10:42
A. Our conversation, I asked her how the experience was and was it a learning experience? Her reply was not really a learning experience. 09:10:48 09:10:54 09:10:56
Q. Did you talk about that deposition further? 09:10:58
A. No, sir. 09:10:58
Q. How about the other physician, have you talked with him about the deposition? 09:11:04 09:11:04
A. No, sir. 09:11:04
Q. Let me go back to Dr. Bowers for a moment. Did she relate to you any of the questions or answers during that deposition? 09:11:16 09:11:18 09:11:20



A. No, sir. 09:11:20
Q. Other than counsel for the plaintiffs in this case, have you talked with anyone about the deposition that you are going to give today? 09:11:26 09:11:28 09:11:30
A. No, sir. 09:11:30
Q. You have given depositions before, I think, based upon the information furnished? 09:11:36 09:11:36
A. Yes, sir. 09:11:36
Q. And let me briefly run through that. 09:11:40
You gave a deposition in a medical malpractice case here in Minneapolis? 09:11:42 09:11:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes. 09:11:44
Q. Have you given depositions in any other medical malpractice cases? 09:11:46 09:11:48
A. No, sir. 09:11:48
Q. Okay. Have you personally been a defendant in any malpractice case? 09:11:50 09:11:52
A. No, sir. 09:11:52
Q. Have you given any depositions where you have discussed medical or scientific issues other than in that medical malpractice case? 09:11:56 09:11:58 09:12:00
A. No, sir. 09:12:02
Q. Would you briefly tell us about the content or the issues in that medical malpractice case and what you were asked to address. 09:12:12 09:12:16 09:12:16



A. There was a patient who had been treated, had been evaluated in an emergency room for chest discomfort, who was subsequently, after evaluation, discharged who came back to another emergency room a day or two later and was subsequently -- had decompensation of a cardiac status and was taken for bypass surgery. 09:12:22 09:12:26 09:12:30 09:12:34 09:12:40 09:12:46
I became his treating physician approximately six to nine months after the bypass operation. I was subpoenaed as a material witness to testify to his current medical condition. 09:12:46 09:12:50 09:12:54 09:12:58
Q. Okay. Did you give any testimony concerning issues relating to the standard of care? 09:13:02 09:13:02
A. No, sir. 09:13:04

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 14 | Q. | Do you remember the style of that case or the | 09:13:14 |
| 15 | | parties' name? | 09:13:14 |
| 16 | A. | I do not at this time. I could -- if you need that, | 09:13:20 |
| 17 | | I could have my secretary furnish that. | 09:13:24 |
| 18 | Q. | You would have records that would reflect that | 09:13:26 |
| 19 | | information in your office? | 09:13:26 |
| 20 | A. | Yes, sir. | 09:13:28 |
| 21 | Q. | Let me, before we get into some of the exhibits, | 09:13:32 |
| 22 | | talk to you just a little bit more about the | 09:13:36 |
| 23 | | deposition you have given. | 09:13:36 |
| 24 | | You have given some depositions in a | 09:13:38 |
| 25 | | property dispute case? | 09:13:40 |



| | | | |
|---|---|---|---|
| 1 | A. | Yes, sir. | 09:13:40 |
| 2 | Q. | Did that involve any medical issues? | 09:13:42 |
| 3 | A. | No, sir. | 09:13:42 |
| 4 | Q. | And then something was disclosed to us in a | 09:13:44 |
| 5 | | bankruptcy case where evaluation of an asset? | 09:13:48 |
| 6 | A. | Yes, sir. | 09:13:48 |
| 7 | Q. | What was that asset? | 09:13:50 |
| 8 | A. | It was some stock in my father's former company | 09:13:54 |
| 9 | | called the Graham Investment Company. | 09:13:56 |
| 10 | Q. | That's not a medical device or medical company? | 09:14:00 |
| 11 | A. | No, sir. | 09:14:00 |
| 12 | Q. | Have you ever given deposition in any kind of | 09:14:08 |
| 13 | | lawsuit as an expert witness for either the | 09:14:12 |
| 14 | | plaintiff or the defendant, other than in this | 09:14:14 |
| 15 | | litigation? | 09:14:14 |
| 16 | A. | No, sir. | 09:14:16 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 17 | Q. | How was it that you got involved in this litigation? | 09:14:20 |
| 18 | A. | Mr. Eisberg is a patient of mine and we have had | 09:14:28 |
| 19 | | certain discussions about medical issues and I think | 09:14:32 |
| 20 | | he plus other people recommended him (sic) to the | 09:14:36 |
| 21 | | legal team. | 09:14:38 |
| 22 | Q. | So you have a personal and a professional | 09:14:44 |
| 23 | | relationship with plaintiffs' counsel? | 09:14:46 |
| 24 | A. | Yes, sir. | 09:14:46 |
| 25 | Q. | Have you ever met with any of these other -- you | 09:14:54 |



| | | | |
|---|---|---|---|
| 1 | | have identified two of them. Have you ever met with | 09:14:56 |
| 2 | | any other of the expert witnesses and discussed the | 09:14:58 |
| 3 | | issues in this litigation? | 09:15:00 |
| 4 | A. | No. | 09:15:20 |
| 5 | | (Defendants' Exhibits 1751 and 1752 | 09:16:10 |
| 6 | | were marked for identification.) | 09:16:12 |
| 7 | BY MR. SHEPPARD: | | |
| 8 | Q. | I am going to hand you what the reporter has marked | 09:16:20 |
| 9 | | as Deposition Exhibit 1751 and ask you if that is | 09:16:24 |
| 10 | | the current curriculum vitae pertaining to you. | 09:16:28 |
| 11 | A. | Yes, sir. | 09:16:30 |
| 12 | Q. | Is that current, to your knowledge? | 09:16:32 |
| 13 | A. | There was, I think, an abstract that I must | 09:16:40 |
| 14 | | apologize, did not make the list of the articles | 09:16:50 |
| 15 | | because of -- I think has since been furnished to | 09:16:58 |
| 16 | | you, as far as one of my publications. | 09:17:00 |
| 17 | Q. | Which one was that, just -- you have one, I am sure | 09:17:04 |
| 18 | | it's the same, but -- or what was its subject? | 09:17:10 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. It was the differences in presentation of coronary artery disease by gender. 09:17:12 09:17:14

Q. That was an abstract? 09:17:20

A. Yes, sir. Published in the Journal of the American College of Cardiology. 09:17:28

Q. With that exception, is the other information on Exhibit 1751 current and up to date? 09:17:30 09:17:34

A. To the best of my knowledge, yes. 09:17:36

Q. Now, according to that CV, you are on the staff at Abbott Northwestern Hospital here in Minneapolis? 09:17:54 09:17:58

A. Yes, sir. 09:17:58

Q. And you hold the title, among other things, of director of marketing for at least a part of that hospital? 09:18:02 09:18:04 09:18:04

A. Yes, sir. 09:18:06

Q. Okay. And what part is that? 09:18:08

A. The cardiovascular services division is the representation or the division of the hospital concerned with cardiovascular disease. 09:18:14 09:18:20 09:18:24

Q. And what do you do as director of marketing for that organization? 09:18:30 09:18:30

A. As far as director of strategic planning and marketing is to direct or help formulate plans for the business aspects of the delivery of cardiovascular care within the large network of hospitals and clinics that we provide -- physicians that we provide care to. 09:18:36 09:18:44 09:18:56 09:19:00 09:19:04 09:19:06

Q. So what -- could you give us a brief description as 09:19:10

http://legacy.library.ucsf.edu/id/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

to what that entails, what you would do day to day with that. 09:19:14 09:19:14

A. In a day-to-day standpoint, it is mostly in a strategic planning rather than a direct marketing effort. 09:19:20 09:19:22 09:19:24

It is coordinating efforts of many different facets of cardiovascular care from prevention to diagnosis to treatments. 09:19:28 09:19:32 09:19:34

The Minneapolis Heart Institute is 44 cardiovascular physicians who we are the largest provider of cardiac care in the Upper Midwest and we provide outreach services to 28 communities in Minnesota and Western Wisconsin. 09:19:38 09:19:42 09:19:46 09:19:50 09:19:52

And it's coordinating care with primary care physicians so that there is a unified delivery of cardiovascular care at both the specialty and the primary care level. 09:19:56 09:20:02 09:20:06 09:20:08

Q. So this does involve clinical issues as well as business issues? 09:20:10 09:20:12

A. Yes, sir. 09:20:12

Q. And how much, approximately, of your professional time is devoted to those duties? 09:20:20 09:20:20

A. I would say 3, 3 to 5 percent. 09:20:26

Q. Now, we discovered by reading the Wall Street Journal that you are occasionally quoted in the media on issues related to cardiology. 09:20:36 09:20:38 09:20:42

Is that because of your involvement with 09:20:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

this cardiovascular services division and its marketing efforts? 09:20:48 09:20:48



A. The cardiovascular services division is a unified effort between Abbott Northwestern Hospital, the physicians, and it's just about two and a half years old now. 09:20:52 09:20:56 09:20:58 09:21:00

The Minneapolis Heart Institute has been a high profile focused on quality care subspecialty -- single care subspecialty cardiac care, and it has been a leader nationally in select areas of cardiovascular care. 09:21:02 09:21:08 09:21:12 09:21:16 09:21:20

Therefore, knowing other providers of similar quality nationally has given us somewhat of a national presence, and myself, as well as other members of our group, are occasionally quoted in the national press who are talking to groups of our like, much like Midwest Heart Institute or MidAmerica Heart Institute in Kansas City. 09:21:22 09:21:28 09:21:32 09:21:38 09:21:46 09:21:52 09:21:52

Q. Are you the public spokesperson for your particular medical group? 09:21:56 09:21:56

A. No, sir. 09:21:56

Q. I think that Wall Street Journal quotation was in respect to some comment dealing with the study of viruses and cardiovascular disease, if I remember correctly; is that right? 09:22:02 09:22:04 09:22:08 09:22:08

A. Yes, sir. 09:22:10

Q. Have you ever made a specific study of that? 09:22:12

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. No, sir. 09:22:12
Q. Is there any ongoing research that your group or facility is doing in that area? 09:22:14 09:22:16
A. No, sir. 09:22:16
Q. Do you think that's a promising area of research? 09:22:20
A. I think it is one of many areas of research that are being looked at in the field of atherosclerosis. 09:22:26 09:22:30
Q. Would you characterize it as a promising area? 09:22:34
A. I think that it is an area, as in most research, that at times can be promising. The delivery of the promise can be somewhat less. 09:22:42 09:22:46 09:22:48
Q. But worthwhile to explore, at least at the moment? 09:22:52
A. As most scientific endeavors are. 09:22:56
Q. Okay. You had a period of time between your graduation from college and enrollment in medical school, according to the curriculum vitae. 09:23:00 09:23:02 09:23:04
Did you work in a medical or a legal area during that time? 09:23:06 09:23:08
A. No, sir. 09:23:08
Q. What type of -- did you do some work during that period of time? 09:23:10 09:23:10
A. Yes, sir. 09:23:12
Q. In what area? 09:23:12
A. I worked on a farm. 09:23:14
Q. Okay. Was that a family farm? 09:23:18



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes, sir. 09:23:20
Q. Now, a period of time you worked briefly, at least, in Colorado? 09:23:20 09:23:26 09:23:26
A. Yes, sir. 09:23:26
Q. At a nursing home or for a nursing home? 09:23:30
A. No, it was a combined clinic hospital emergency room and nursing home. 09:23:38 09:23:38
Q. Did you at one time have a medical license in Colorado? 09:23:40 09:23:40
A. Yes, sir. 09:23:42
Q. Is that still current? 09:23:44
A. No, sir. 09:23:44
Q. Other than in Minnesota and Colorado, have you had medical licenses, whether current or not current, in other states? 09:23:48 09:23:52 09:23:52
A. No, sir. 09:23:54
Q. Under Present Appointment you describe yourself as a, quote, "consulting cardiologist," unquote. 09:24:14 09:24:18
A. Yes, sir. 09:24:18
Q. Are all the cardiologists that work in this group consulting cardiologists? 09:24:20 09:24:22
A. Yes, sir. 09:24:24
Q. And you are the director of preventive cardiology? 09:24:28
A. Yes, sir. 09:24:28
Q. Is that kind of a subfocus within your group or how would you describe it? 09:24:32 09:24:34
A. Could you define the question a little bit further? 09:24:36



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Sure. You are the listed -- in your CV list yourself as director of preventive cardiology, right? 09:24:40 09:24:44 09:24:44

A. (Witness indicating in the affirmative.) 09:24:46

Q. Tell me how it is that -- is that a position within the group that only one person has? 09:24:50 09:24:52

A. Yes, sir. 09:24:52

Q. And you are still in that position? 09:24:56

A. Yes, sir. 09:24:56

Q. Is that a particular focus of your practice, then? 09:25:00

A. Yes, sir. 09:25:02

Q. And has that been true since before 1992? 09:25:06

A. Yes, sir. 09:25:10

Q. When did you first actually start practicing cardiology? 09:25:12 09:25:14

A. I have been with the Minneapolis Heart Institute for approximately eight and a half years. 09:25:16 09:25:18

Q. Did you practice somewhere else cardiology before that? 09:25:22 09:25:22

A. I came from fellowship at the University of Minnesota directly to the Minneapolis Heart Institute. 09:25:28 09:25:32

Q. So the entirety of your practice in the specialty of cardiology has been with this one organization? 09:25:36 09:25:40

A. Yes, sir. 09:25:40

Q. And it's been -- you have practiced, then, for about eight and a half years? 09:25:44 09:25:44



http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes, sir. 09:25:46
Q. Now, you also are listed as the CEO of a ProMedicos Systems, Inc.? 09:25:56
A. Medicos. 09:25:58
Q. Sorry. What is that all about? 09:26:00
A. ProMedicos is a company that another member of my group and I founded to implement the delivery of, again, practice of medicine focusing on a best practice model sharing it with specialty physicians networked with primary care physicians in order to deliver state-of-the-art medical care wherever a patient presents. 09:26:06 09:26:12 09:26:18 09:26:22 09:26:26 09:26:30 09:26:32
Q. Okay. Is that, then, an incorporated business? 09:26:34
A. Yes, sir. 09:26:36
Q. Which there are shares and shareholders? 09:26:38
A. Yes, sir. 09:26:38
Q. Are all the shareholders physicians? 09:26:42
A. No, sir. 09:26:46
Q. Is that a publicly-traded company? 09:26:48
A. No, sir. 09:26:48
Q. Privately-held company? 09:26:50



A. Yes, sir. 09:26:50
Q. Are there shareholders that are physicians in other parts of the United States other than Minnesota and Wisconsin? 09:26:52 09:26:56
A. No, sir. 09:26:56
Q. Have you ever been part of a nationwide physicians organization originating out of Atlanta? 09:27:06 09:27:08

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 8 | A. | Yes, sir. | 09:27:08 |
| 9 | Q. | Are you still a part of that? | 09:27:10 |
| 10 | A. | Yes, sir. | 09:27:10 |
| 11 | Q. | What's its name? | 09:27:10 |
| 12 | A. | The National Cardiology Network. | 09:27:12 |
| 13 | Q. | Is that in any way related to the business we were | 09:27:16 |
| 14 | | just talking about? | 09:27:18 |
| 15 | A. | No, sir. | 09:27:18 |
| 16 | Q. | Tell me about the National Cardiology Network | 09:27:26 |
| 17 | | briefly. | 09:27:26 |
| 18 | A. | The National Cardiology Network was founded several | 09:27:32 |
| 19 | | years ago by a physician named William Knoff from | 09:27:36 |
| 20 | | Atlanta looking to -- basically, to cardiology | 09:27:42 |
| 21 | | groups who had a focus of volume and quality and who | 09:27:48 |
| 22 | | focused around collection of data regarding their | 09:27:54 |
| 23 | | practices in an effort to use that data to advance | 09:28:00 |
| 24 | | the clinical practice of cardiology. | 09:28:04 |
| 25 | Q. | Okay. Approximately how many persons belong to that | 09:28:12 |



| | | | |
|---|---|---|---|
| 1 | | national network? | 09:28:12 |
| 2 | A. | There are currently 38 members nationally of the | 09:28:16 |
| 3 | | National Cardiology Network. | 09:28:18 |
| 4 | Q. | Is it a group membership or a personal membership? | 09:28:24 |
| 5 | | In other words, do you belong to it or do you and | 09:28:26 |
| 6 | | other people -- does your group belong to it? | 09:28:28 |
| 7 | A. | A unit of the Minneapolis Heart Institute at | 09:28:30 |
| 8 | | Abbott Northwestern, there is physicians groups, | 09:28:38 |
| 9 | | cardiology groups and surgery groups with a hospital | 09:28:42 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

that joined as a unit to the National Cardiology Network. 09:28:46

Q. So who is -- if one had a roster of that, how would your membership be reflected? 09:28:50 09:28:52

A. I think it's reflected as the Minneapolis Heart Institute/Abbott Northwestern. 09:28:56 09:28:56

Q. Okay. Now, are all the cardiologists that practiced at Abbott Northwest members of your particular group? 09:29:04 09:29:06 09:29:06

A. No, sir. 09:29:08

Q. Is Abbott Northwest affiliated with the medical school in Minneapolis? 09:29:12 09:29:14

A. It is a clinical affiliation with the University of Minnesota medical school in that students rotate through for medical externships through Abbott Northwestern. 09:29:18 09:29:24 09:29:28 09:29:28



Abbott Northwestern also has their own independent residency program in internal medicine and the -- we have a -- in our cardiology practice an interventional cardiology fellow through an educational program. 09:29:32 09:29:36 09:29:42 09:29:46 09:29:48

Q. That's one fellow during a certain period of time? 09:29:52

A. Yes, sir. 09:29:54

Q. Would that, then, be the only training program for cardiologists at Abbott Northwest? 09:30:00 09:30:02

A. Yes, sir. 09:30:04

Q. And you have a clinical appointment with the medical school? 09:30:12 09:30:12

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes, sir. 09:30:14
Q. And that gets you involved with, I assume, this fellow that comes there, and are you also involved with students and internal medicine residents? 09:30:18 09:30:24 09:30:28
A. Yes, sir. 09:30:28
MR. EISBERG: Wait for him to finish the question before you answer. 09:30:30 09:30:32
THE WITNESS: I am sorry. Okay. 09:30:34
MR. EISBERG: Makes it easier for our court reporter. 09:30:34 09:30:36
BY MR. SHEPPARD:
Q. Why don't I go back and start again. 09:30:38
How much time do you spend on your 09:30:40



clinical appointment from the medical school? 09:30:42
A. I would say 5 percent. 09:30:46
Q. Before I leave these subjects I want to make sure I have gotten the information about this company that you and another doctor have. Who is the other doctor? 09:30:56 09:31:02 09:31:04 09:31:04
A. Dr. Jon Lesser. 09:31:06
Q. Is he also a cardiologist? 09:31:08
A. Yes, sir. 09:31:08
Q. Tell me how this company functions. 09:31:10
A. It's a -- it's at this point just a small start-up company. We have, in the Allina Health system, a chest pain management decision support tool that has been running for approximately a year and a half and 09:31:18 09:31:24 09:31:34 09:31:40

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

we are just in the process now of adding other decision support tools to that roster. 09:31:42 09:31:44

Q. And you are going to have to explain to us lay people what a decision support tool is and how it relates to clinical practice, if it does. 09:31:48 09:31:50 09:31:54

A. A decision support tool, a computerized decision support tool, helps bring expert guidance to the point of patient presentation, and it is not a -- it is an attempt to open or focus knowledge on a particular symptom complex and help somebody who is in that -- a physician who is seeing the patient at 09:31:58 09:32:08 09:32:16 09:32:26 09:32:32 09:32:38



the time make appropriate decisions regarding that patient's care. 09:32:42 09:32:42

Q. All right. See if I can feed back to you what I heard you say and you can tell me whether I am in the ballpark on my thinking or not. 09:32:46 09:32:50 09:32:52

This would be a -- this is a computerized data bank of information concerning clinical information and issues that can be accessed by a doctor who is actually caring for the patient who affords guidance to him in that care? 09:32:56 09:32:58 09:33:02 09:33:08 09:33:10

A. Yes, sir. And the physician who is seeing the patient, actually, that data becomes part of the database and the database then changes depending on what happens to that patient and the outcomes of that patient. 09:33:12 09:33:16 09:33:20 09:33:24 09:33:24

Q. Okay. So where is this support tool functioning? 09:33:28

A. In the -- at Minneapolis Heart Institute, Abbott 09:33:34

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Northwestern Hospital, the New Ulm Medical Center. 09:33:38

Q. Okay. That's a separate medical facility? 09:33:42

A. That's a facility approximately 100 miles away. 09:33:48

It's an alpha test. 09:33:50

Q. So how long has this system been operational? 09:33:54

A. Approximately 18 months. 09:33:56

Q. Did you start off with data that was already 09:34:02

available? How did the system have the data at the 09:34:08



onset to be -- 09:34:10

A. We did a pilot validation study on approximately 650 09:34:16

patients, then validated for patient safety and 09:34:24

predictability of the data to show what we wanted to 09:34:32

show. 09:34:32

Q. All right. So the data that you accumulated to put 09:34:36

in the system originally was data that your 09:34:40

organization had accumulated? 09:34:42

A. Yes, sir. 09:34:42

Q. Okay. You didn't have a prepackaged software system 09:34:46

that already had the data in it? 09:34:48

A. No, sir. 09:34:48

Q. All right. Now, are these all patients that have 09:34:50

some type of cardiac complaints or suspected cardiac 09:34:54

complaints? 09:34:54

A. Suspected cardiac complaints, chest pain. 09:34:58

Q. That is the complaint or has other symptoms in the 09:35:04

system? 09:35:04

A. In this module, the -- it's a chest pain 09:35:12

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

guideline/decision support tool. 09:35:14

Q. Okay. I take it that you have aspirations of 09:35:20
expanding it to other clinical symptoms and 09:35:22
presentation? 09:35:22

A. Yes, sir. 09:35:24

Q. But right now it's limited to chest pain? 09:35:28



A. Yes. 09:35:30

Q. And medical management and treatment of that 09:35:32
symptom? 09:35:32

A. The medical diagnosis and management. 09:35:36

Q. Okay. Now, is that system, then, kept within the 09:35:50
hospital or within the group or -- 09:35:52

A. It is -- resides on a server and then it is accessed 09:35:58
by workstations. 09:36:00

Q. Okay. Right there in the hospital, then? 09:36:02

A. The hospital, in the Heart Institute, which is 09:36:04
contiguous to the hospital, and in the New Ulm 09:36:10
Medical Center.

Q. So, for example, if a doctor is in the emergency 09:36:14
room on a Saturday night and somebody comes in with 09:36:18
chest pain, he or she can access this data and use 09:36:20
it to -- as a source of information to make a 09:36:24
decision? 09:36:24

A. We have not placed it in the emergency room at 09:36:28
Abbott Northwestern yet. We have been alpha testing 09:36:32
it with the cardiologists only to this point. 09:36:34

Q. So access is presently limited to cardiologists? 09:36:38

A. Cardiologists in the Twin -- in Abbott Northwestern 09:36:40

http://legacy.library.ucsf.edu/id/msm35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

and the Heart Institute. The alpha site for testing for primary care physicians is the New Ulm Medical Center, where it is available there. 09:36:44 09:36:48 09:36:52



Q. And tell us what geographical location that medical center is 100 miles away. What city is it in? 09:36:54 09:36:58

A. It's in New Ulm, Minnesota. 09:37:00

Q. Is that also an affiliate of the same health care system that Abbott Northwest belongs to? 09:37:02 09:37:06

A. Abbott Northwestern is a member of the Allina Health Care System. I believe that the Allina Health Care System has a management contract with the New Ulm Hospital. I am not exactly sure of their exact management structure. Their Allina Health System has a number of different ownership and/or management relationships with various hospitals around the state. 09:37:12 09:37:16 09:37:18 09:37:22 09:37:24 09:37:26 09:37:32 09:37:32

Q. Okay. Well, in fact, in other states as well, correct? 09:37:36 09:37:36

A. Possibly Western Wisconsin, but not -- it's not a national chain. 09:37:40 09:37:42

Q. Is that a publicly-traded concern? 09:37:44

A. Allina and the -- is a not-for-profit. 09:37:52

Q. Is it operated by any particular group of people? 09:37:56

A. It is operated by a -- not-for-profit is a publicly-scrutinized board and a management team that is hired by that board. 09:38:02 09:38:10 09:38:10

Q. It doesn't have a particular religious affiliation, 09:38:14

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

for example, or something like that? 09:38:18

A. Not that I am aware of. 09:38:20

Q. Okay. Is your particular medical group of cardiologists also part of that health care system? 09:38:20 09:38:24

A. Yes, sir. 09:38:24

Q. Are you and this company presently accumulating data, then, that would enable you to expand this computerized support tool beyond just chest pain? 09:38:38 09:38:40 09:38:44

A. The data that we accumulate on chest pain will not allow us to go into other areas, per se. We will have to accumulate the data. 09:38:56 09:39:00 09:39:02

Q. That's my question. Are you presently accumulating data to go beyond the -- just the chest pain treatment? 09:39:04 09:39:08 09:39:10

A. No, no, sir. 09:39:10

Q. Do you have plans to do that in the future? 09:39:16

A. Yes, sir. 09:39:16

Q. Now, you had indicated that this network that originated in Atlanta, 38 members, had a focus on data collection. 09:39:28 09:39:32 09:39:34

A. Yes. 09:39:36

Q. Do you remember that? Tell me some more about that. What data did they collect and how did they collect it and where does it presently reside? 09:39:38 09:39:40 09:39:42

A. The data that is collected is mostly hospital procedural data at this time, number of procedures, 09:39:48 09:39:54

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

outcomes of procedures in a standardized fashion. That is then the data warehousing point and the reporting point is done through Duke University at this time, to my knowledge. 09:39:58 09:40:04 09:40:08 09:40:08

Q. Okay. You know, if it comes a point during the deposition you need to respond -- I didn't mention that earlier -- to a page, you certainly feel comfortable in doing that. 09:40:16 09:40:18 09:40:20 09:40:22

A. Thank you, but -- I will. 09:40:24

Q. Is that information and data publicly available? 09:40:28

A. I am not sure. 09:40:30

Q. If one was to go in to search for it through the public available tools to find it, what would they look for? 09:40:34 09:40:38 09:40:40

A. The National Cardiology Network database. 09:40:42

Q. And who is it at Duke University that is the principal person in charge? 09:40:50 09:40:52

A. I am not sure of the person's name. 09:40:54

Q. Would it be someone within the Department of Cardiology at Duke Medical School? 09:41:00 09:41:02

A. Possibly, but I am not sure who was doing the data processing there. 09:41:08 09:41:10

Q. Now, what is your -- the nature of your involvement with that organization beyond collecting data? 09:41:18 09:41:22

A. I have no formal role in the National Cardiology 09:41:28



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Network.

Q. But you do have a formal -- a formal role in the other organization, chest pain -- are the other cardiologists there within your group, then, affiliated with that or is it basically just you and this other physician? 09:41:38 09:41:44 09:41:48 09:41:50 09:41:54

A. Sixteen members of the group have purchased a small amount of stock in that company. 09:41:56 09:41:56

Q. The thought of this is this would be a company and perhaps someday it might become an initial public offering or something? 09:42:00 09:42:02 09:42:04

A. That is a possibility, but now it's just a very tiny start-up company. 09:42:06 09:42:08

Q. Okay. Have you been involved in any other business enterprises similar to that related to your medical knowledge? 09:42:10 09:42:12 09:42:14

A. I have been an intermittent consultant giving talks for various -- I give a lot of talks regarding preventive cardiology, some of which are sponsored by pharmaceutical industries. 09:42:20 09:42:28 09:42:30 09:42:36

I have been a consultant in the past two years -- no longer currently -- a consultant for Medtronic about a health care advisory board. 09:42:42 09:42:48 09:42:50

Q. That's on their medical devices? 09:42:54

A. No, it's just on a -- generally health care issues, 09:42:58



larger health care issues not pertaining to any particular device. 09:43:00 09:43:00

Q. Any others? 09:43:06

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. There are times where people will come and just ask questions of things -- about certain things like being in a place like the Heart Institute you become peripherally involved in, but nothing formal consulting or anything. 09:43:16 09:43:20 09:43:22 09:43:26 09:43:28

Q. In addition to the Wall Street Journal we ran across, and I think we sent those up this way, some articles -- or some articles that had references to contacts with you and quotations from you, and you do that as part of being a member of the Heart Institute? 09:43:32 09:43:36 09:43:38 09:43:40 09:43:44

A. Yes, and as director of preventive cardiology. We have a -- we have tried to establish a relationship with the media so that we can let them know as cardiac stories come out what is a good story, what is not a good story. 09:43:50 09:43:56 09:44:02 09:44:08 09:44:10

Most of the discussions with the media never make it into press or on television. 09:44:10 09:44:14

Q. And when you use the term "good story" are we talking about a good story from a medical standpoint, it's a medical story about something of some significance? Is that the context you are using it? 09:44:22 09:44:24 09:44:28 09:44:30 09:44:30

A. Yes, we practice clinical medicine and we, I think, feel good about commenting about clinical cardiology stories that a lot of what sometimes comes out in the popular press worries patients, concerns 09:44:40 09:44:48 09:44:52 09:44:56



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

patients, and we try and help them decide -- help them focus on what is valid scientific -- 09:45:02 09:45:08

Q. Okay. 09:45:10

A. -- stories that are coming out. 09:45:12

Q. Most of those articles that we ran across were comments to -- with the exception of the Wall Street Journal article that just appeared recently were comments in the Minneapolis papers. 09:45:18 09:45:22 09:45:24 09:45:26

Have there been other instances where, as part of your effort to establish a relationship with the media, you have been quoted by newspapers outside the Wall Street Journal and the Minneapolis paper? 09:45:30 09:45:32 09:45:34 09:45:38 09:45:38

A. Possibly, but I can't recall right off. 09:45:42

Q. Have you also attempted to establish kind of a media relationship with the Wall Street Journal? 09:45:50 09:45:50

A. No, sir. 09:45:52

Q. They just kind of called you out of the blue on that particular matter? 09:45:56 09:45:58

A. You know, different reporters will sometimes call, 09:46:04



and just being in a national related prominent cardiac group, will call and ask questions and it just happens as it happens. 09:46:10 09:46:16 09:46:18

Q. And you said that you occasionally made talks for -- at the behest of drug companies on preventive cardiology. 09:46:30 09:46:34 09:46:34

I take it from the information that we were provided preventive cardiology is your 09:46:36 09:46:38

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

principal professional focus? 09:46:40

A. I practice a full spectrum of clinical cardiology including angioplasty, diagnostic catheterization, consultive cardiology, pacemaker implantation, as well as -- and preventive cardiology is a passion. 09:46:46 09:46:50 09:46:58 09:47:04

Q. Okay. And in conjunction with that passion, you have made talks at the behest of drug companies, and we will talk a little bit more about some of these cholesterol-lowering drugs a little bit later. 09:47:16 09:47:22 09:47:24 09:47:28

Are those talks to the physicians or talks to the general public or talks to some other groups? 09:47:30 09:47:32

A. I give talks to general groups, to physicians' groups. The talks -- probably 20 to 30 talks to general groups per year are not in any way sponsored by the -- usually by the pharmaceutical industry. 09:47:38 09:47:46 09:47:50 09:47:54

We have a Minneapolis Heart Institute Foundation which is responsible for education of the 09:48:00 09:48:04



not only physicians but of the general public regarding heart-related issues, and many of the talks will be sponsored by the foundation. 09:48:08 09:48:12 09:48:18

Q. These would be talks in -- at least 20 to 30 talks a year you might deliver to various groups are sponsored by the foundation? 09:48:24 09:48:28 09:48:28

A. Or are arranged by the foundation. There is no sponsorship to it, but they are just arranged. 09:48:32 09:48:34

Q. Okay. Now, then, in respect to discussions with the lay public, who -- give me some examples of the type 09:48:46 09:48:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

of groups that you would speak to. 09:48:52

A. Oh, we have, usually, a biannual series of lectures on -- that we will do evaluations of people's risk factors and then have a series of speakers on, say, four consecutive Tuesday nights, speak with a group of from 100 to 300 people who sign up just to want some general information regarding their cardiac status in order to try and either avoid the first heart attack or avoid a second one. 09:48:58 09:49:04 09:49:06 09:49:12 09:49:16 09:49:20 09:49:24 09:49:28

And so they are general education type programs. Could be a Kiwanis Club at noontime, could be many different things. 09:49:32 09:49:38 09:49:38

Q. And when you speak, you do this in your role as the director of preventive cardiology? 09:49:52 09:49:54

A. That's how I am usually introduced. 09:49:56



Q. And that's what you list on your business card? 09:50:00

A. Yes, sir. 09:50:00

Q. And how was it -- did they have a director of preventive cardiology within your group prior to the time that you assumed that position? 09:50:08 09:50:12 09:50:12

A. Yes, sir. 09:50:14

Q. So you replaced someone else? 09:50:16

A. Yes, sir. 09:50:16

Q. Who was that? 09:50:16

A. Dr. James Zavaral. 09:50:18

Q. Did you undergo any specialized additional training to qualify for that position? 09:50:22 09:50:24

A. In my residence -- or my cardiac fellowship I was 09:50:30

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

mentored by Dr. Donald Hunninghake, H-U-N-N-I-N-G-H-A-K-E, at the University of Minnesota, who has a national prominence as a preventive cardiologist, and my research focus in my fellowship training was in preventive cardiology. 09:50:34 09:50:42 09:50:46 09:50:50 09:50:56

Q. Is that physician still with the University of Minnesota? 09:51:10

A. Yes. 09:51:10

Q. Do you still communicate and keep in contact with him about issues of preventive cardiology? 09:51:16 09:51:18

A. From time to time. 09:51:20

Q. Let me explore further some of the information that you have just provided. You said that your research focus during your cardiology fellowship -- and that was at the University of Minnesota? 09:51:30 09:51:34 09:51:36 09:51:38

A. Yes, sir. 09:51:38

Q. Was it preventive cardiology? 09:51:42

A. Yes, sir. 09:51:42

Q. What research did you conduct as part of that interest and as part of fulfilling the requirements for your fellowship? 09:51:46 09:51:48 09:51:48

A. We performed a full spectrum of both pharmaceutical trials, working with newer agents to lower cholesterol, as well as NIH, National Institute of Health, sponsored larger trials. 09:51:56 09:52:02 09:52:08 09:52:12

The major trial that I helped initiate was the coronary artery post-bypass intervention trial. 09:52:16 09:52:24



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

It involved five sites in the United States and Canada in which the University of Minnesota and the Minneapolis Heart Institute were co-sites on that particular study. 09:52:28 09:52:32 09:52:38 09:52:40

Q. Was that completed at the time you finished your fellowship? 09:52:44 09:52:46

A. No. 09:52:46

Q. Has it been completed in the data published? 09:52:48

A. It has been now. 09:52:50

Q. What is the article that discusses that project? 09:52:54



A. The -- there was an article approximately six months ago in the New England Journal, which being a multinational trial, just the authors of the chief investigators from each site and Dr. Hunninghake's name is cited on that article of reports of that study. 09:52:58 09:53:02 09:53:08 09:53:14 09:53:16 09:53:18

Q. Okay. Was that one -- an article that you referenced in the information you provided on your report? 09:53:22 09:53:24 09:53:24

A. No, sir. 09:53:26

Q. It had no particular relevance to the issues that you are going to be talking about? 09:53:28 09:53:30

A. Not -- I was not listed as an author, and so if you are not listed as an author, I don't put it down, even -- I participated in the writing of the initial portions and of the initial recruitment for that study, but since I was not at the university for the duration of the study, which was five years from the 09:53:36 09:53:38 09:53:42 09:53:44 09:53:48 09:53:54

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

initiation of recruitment, I was not an author of the study. 09:54:00 09:54:00

Q. Okay. Is this other physician listed as the first author? 09:54:06 09:54:06

A. The final -- he is listed as one of the principal authors. I am not sure whether he is listed as the -- 09:54:12 09:54:14 09:54:14

Q. Do you know the title of the article, roughly? 09:54:16

A. It's the Report of Cholesterol -- no, it's called the Post-Bypass Interventional Trial. 09:54:24 09:54:28

Q. Okay. What interventions were being evaluated? 09:54:38

A. The interventions that were primarily being looked at in that study were aggressive lipid lowering -- very aggressive LDL lowering to see if it could affect the patency of saphenous venous bypass graphs one to six years post-bypass. 09:54:42 09:54:48 09:54:52 09:54:58 09:55:02

Q. And these would be -- the intervention, then, would be the administration of these cholesterol-lowering drugs that have, in the last few years, been available in the marketplace? 09:55:08 09:55:12 09:55:16 09:55:18

A. Yes, sir. 09:55:18

Q. Which particular medication was being evaluated? 09:55:26

A. Lovastatin, L-O-V-A-S-T-A-T-I-N, and some patients also received Cholestyramine, C-H-O-L-E-S-T-Y-R-A-M-I-N-E. 09:55:36 09:55:38 09:55:46

And there was also another arm of the study that checked -- tested for low dose 09:55:52 09:55:54

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

anticoagulation Coumadin in very, very low doses to see if this could affect the patency of the graphs. 09:56:02 09:56:06

Q. What was the -- I realize we don't have the article here, it wasn't researched because it wasn't listed. 09:56:10 09:56:14 09:56:16



What was the general conclusion, impression in that article? 09:56:18 09:56:22

A. You know, I think it would be out of our bounds somewhat today to talk about that, and I don't -- we would have to look at it, and since I was not a -- you know, an author of that, I haven't looked at it closely in a long period of time. 09:56:26 09:56:30 09:56:34 09:56:36 09:56:40

I guess the general consensus of a number of secondary prevention trials is that a lower cholesterol is better, and I think that that was in line with the general consensus of what we call secondary prevention trials. 09:56:44 09:56:50 09:56:52 09:57:00 09:57:00

Q. You do have an ongoing interest in secondary prevention? 09:57:06 09:57:06

A. Yes, sir. 09:57:08

Q. As well as primary prevention? 09:57:10

A. Yes, sir. 09:57:10

Q. Do you, yourself -- are you now engaged in any interventional trials or other research having to do with these cholesterol-lowering drugs? 09:57:14 09:57:18 09:57:22

A. We are in the process of initiating a study now, a year-long follow-up -- or a year-long comparison of several cholesterol-lowering medications. 09:57:28 09:57:32 09:57:36

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

It's a -- looking at the newer drug named Atorvastavin that's on the market. 09:57:42 09:57:44

Q. Could you spell that. 09:57:44

A. A-T-O-R-V-A-S-T-A-V-I-N, that has recently become on the market. Some of the other agents that have been on the market. It's a multi-center industry-supported study. 09:57:54 09:57:58 09:57:58 09:58:12

(A recess was taken.) 10:08:34

BY MR. SHEPPARD:

Q. Did you have a chance to take care of that page? 10:08:36

A. I did, thank you. 10:08:36

Q. Well, as I told you, you feel free -- patient care is important so you feel free if you get a page and need to respond, let me know. 10:08:40 10:08:44 10:08:46

A. Okay. Thank you. 10:08:46

Q. Now, we were talking about -- you said you were just starting, what, some clinical trials or evaluations? 10:08:50 10:08:54

A. A clinical trial. It's 25 patients. 10:08:58

Q. Okay. Who is the manufacturer of this newer drug? 10:09:02

A. Parke Davis, P-A-R-K-E, Davis. 10:09:10

Q. Now, does this drug have the same -- work the same way as these other cholesterol-lowering drugs that have been on the market for the last three or four years? 10:09:16 10:09:20 10:09:22 10:09:22

A. Yes, the family of drugs that is called the statin family. 10:09:26 10:09:26

Q. Right. Is it part of that family? 10:09:28

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. It is a statin drug. 10:09:30
Q. So is this, then, a test of that particular drug in that family versus other medications, also, in that family? 10:09:36 10:09:38 10:09:40
A. Yes. This is a study to look at the year-long effects of this drug versus other of the drugs that are on the market. 10:09:46 10:09:50 10:09:52
Q. And what is the patient population being studied? 10:09:56
A. Patients who have significant elevations of cholesterol, LDL cholesterol, specifically, on entry. 10:10:02 10:10:08 10:10:08
Q. And what is the criteria to be one of the -- you say there are 25 people being studied? 10:10:16 10:10:16
A. Right. 10:10:18
Q. Is this a study that you are responsible for or in charge of? 10:10:20 10:10:20
A. I am the local principal investigator. 10:10:24
Q. There are people being studied at other medical centers, as well? 10:10:26 10:10:28
A. Yes, it's a multi-center -- probably across the country greater than 100 centers are participating in it. 10:10:32 10:10:34 10:10:34
Q. So there are maybe 25 in your shop, but there are other patients in other places, right? 10:10:46 10:10:50
A. Right. 10:10:50



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. So how many patients total will be participating? 10:10:52
A. I am not exactly sure. 10:10:56
Q. What is the criteria for -- to be a patient to be studied? 10:11:00
A. LDL cholesterols greater than 160 milligrams per deciliter. 10:11:08
Q. Is there any other criteria? 10:11:14
A. They -- patients cannot have significant compounding medical problems that would alter the ability to judge the effect of the lipid lowering of the drug, of the lowering effects of the drug. 10:11:22
Q. Okay. Would you give us an example or two of that. 10:11:40
A. A patient who was on steroids is excluded from the trial. A patient who has not had a stable cardiac condition that may require repeat hospitalizations. A patient who has just had a heart attack is not a candidate for the medication, for this trial. 10:11:46
Q. Okay. But they could have had a heart attack in the past? 10:12:14
A. Yes, sir. 10:12:16
Q. So this is not -- these are persons that are -- fall into the primary and secondary category? 10:12:22
A. Yes. 10:12:24
Q. Both groups being studied together? 10:12:26
A. Yes, sir. 10:12:26



Q. Any other -- is there a criteria as to whether or 10:12:34

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

not they are smokers? 10:12:34

A. No, sir. 10:12:36

Q. Is there a medical center that is the principal coordinator, for lack of a better word? 10:12:52 10:12:54

A. It is being run by a study company called Icon; I-C-O-N, I believe. 10:13:06 10:13:06

Q. And where are they headquartered? 10:13:10

A. I believe New Jersey, but I would have to look. 10:13:14

Q. It's a company that -- 10:13:16

A. Runs the studies. 10:13:18

Q. Studies for drug companies, at the behest of drug companies? 10:13:22 10:13:22

A. Yes, sir. 10:13:24

Q. Now, other than that study that is about to get underway, clinical study, are you presently engaged in any other kind of research efforts, yourself, and particularly in respect to these cholesterol-lowering drugs? 10:13:28 10:13:32 10:13:34 10:13:36 10:13:38

A. No, sir. 10:13:40

Q. Have you, since the time that you have completed your fellowship in cardiology in the late '80s, been engaged in any clinical studies or trials of these cholesterol-lowering drugs? 10:13:44 10:13:48 10:13:52 10:13:54

A. The former director of the preventive program was 10:14:04



involved in several trials, and when he left, I just saw to the closing of most of those trials, so just no -- I guess where I would be called the investigator. 10:14:12 10:14:20 10:14:26 10:14:28

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. What were the medications that were involved in those clinical trials that you inherited upon assuming this position? 10:14:36 10:14:40 10:14:40

A. Without going back and reviewing the particular groups, I couldn't say exactly. 10:14:46 10:14:50

There were just a number of studies looking at combinations of these type of drugs, but potentially with other drugs, the effects of those, and the effects of different dosing of the standard drugs that are on the market today. 10:14:54 10:15:00 10:15:02 10:15:06 10:15:08

Q. Is that data published, to your knowledge, after the studies were concluded? 10:15:14 10:15:16

A. Some of the data has been published. The -- in the -- again, these were large, multi-center trials which our institution was a participant in and not the principal investigator. 10:15:22 10:15:26 10:15:32 10:15:32

Q. So if one wanted to access that data in the public arena, where would one go? Where would one look for it? 10:15:40 10:15:46 10:15:46

A. The -- it would -- I would have to find the particular study and see if that data from those 10:15:52 10:15:58



studies has been published. I can access that data and furnish it to you if you so desire. 10:16:04 10:16:06

There have been hundreds of post-marketing studies, many FDA-mandated, that have been performed, and so which study has been published where is difficult to ascertain. 10:16:10 10:16:16 10:16:22 10:16:22

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 7 | Q. | Are you listed on any of those published studies as | 10:16:28 |
| 8 | | one of the investigators? | 10:16:30 |
| 9 | A. | There is a study in press regarding our apheresis | 10:16:40 |
| 10 | | unit that we have had three patients as part of a -- | 10:16:44 |
| 11 | | these are patients with severe familial | 10:16:48 |
| 12 | | hyperlipidemia who were given what is called | 10:16:54 |
| 13 | | apheresis of their LDL cholesterol, which actually | 10:16:58 |
| 14 | | takes LDL out of the bloodstream, that there is a -- | 10:17:02 |
| 15 | | and these patients, of course, are very rare. | 10:17:04 |
| 16 | | So in our large practice we only had three | 10:17:08 |
| 17 | | who qualified who were with Dr. David Brown, who is | 10:17:12 |
| 18 | | a nephrologist, who were part of the study. That | 10:17:20 |
| 19 | | study is now in press and has been submitted. | 10:17:24 |
| 20 | Q. | And who is going to publish that? | 10:17:26 |
| 21 | A. | I am not exactly sure, to tell you the truth. | 10:17:30 |
| 22 | Q. | Okay. Who will be listed as the first author or the | 10:17:32 |
| 23 | | principal investigator? | 10:17:34 |
| 24 | A. | I believe Roger Illingworth from Portland. | 10:17:40 |
| 25 | Q. | Have you seen the article in the form to which it's | 10:17:46 |



| | | | |
|---|---|---|---|
| 1 | | going to be printed? | 10:17:46 |
| 2 | A. | I saw an early rendition that I was asked to comment | 10:17:52 |
| 3 | | on. We usually don't -- until an article is in | 10:18:00 |
| 4 | | press, do not list that article. | 10:18:02 |
| 5 | Q. | What was the general finding that's going to be | 10:18:08 |
| 6 | | presented in that article? | 10:18:12 |
| 7 | A. | The finding, again, is with -- is that this was a | 10:18:16 |
| 8 | | study to say did LDL pheresis lower the cholesterol | 10:18:24 |
| 9 | | and was it tolerated by patients. | 10:18:28 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 10 | Q. | Is that why the nephrologist is involved? | 10:18:30 |
| 11 | A. | LDL pheresis is a dialysis, if you would, of LDL | 10:18:36 |
| 12 | | cholesterol, and that is not my area of expertise, | 10:18:42 |
| 13 | | and so the actual mechanics of the pheresis | 10:18:48 |
| 14 | | procedure were overseen by the nephrologist. We | 10:18:56 |
| 15 | | specifically identified the patients who have had | 10:18:58 |
| 16 | | extremely high serum cholesterols. | 10:19:02 |
| 17 | Q. | This LDL, whether you take a look at the popular | 10:19:04 |
| 18 | | press or you go to see your internist or family | 10:19:06 |
| 19 | | doctor, that's the bad cholesterol they talk about? | 10:19:10 |
| 20 | A. | Yes. | 10:19:10 |
| 21 | Q. | What were the -- was this a beneficial procedure | 10:19:14 |
| 22 | | according to this article? I mean, did it make a | 10:19:16 |
| 23 | | difference in terms of their outcome? | 10:19:18 |
| 24 | A. | It was not an outcomes article as far as looking at | 10:19:20 |
| 25 | | the effects. It was an article to say did the | 10:19:24 |



| | | | |
|---|---|---|---|
| 1 | | procedure work and did human beings tolerate this | 10:19:28 |
| 2 | | over the course of a year. | 10:19:30 |
| 3 | Q. | Okay. Is there an ongoing study, then, to see if | 10:19:36 |
| 4 | | this makes a difference in terms of their | 10:19:38 |
| 5 | | cardiovascular condition over the years? | 10:19:40 |
| 6 | A. | The patients are being followed in an open-ended way | 10:19:46 |
| 7 | | at this time. Atherosclerosis studies oftentimes | 10:19:52 |
| 8 | | take years to reach an end point, and that's why | 10:19:54 |
| 9 | | many of those studies evolve over five to ten | 10:19:58 |
| 10 | | years. | 10:19:58 |
| 11 | | So there have been specific substudies | 10:20:02 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

done in Japan of patients with this that are -- have looked at this and are in progress now. 10:20:08 10:20:10

Q. What percent of the population in the United States -- you said that you had three patients that met the criteria in your particular center here. 10:20:12 10:20:16 10:20:18 10:20:18

Roughly how significant is this family condition in the United States? 10:20:22 10:20:24

A. One in 100,000. 10:20:40

Q. Any other studies, then, before we leave that topic, that you can recall that related to cholesterol lowering that was in the clinical trials when the previous director had departed and you assumed the position? 10:20:42 10:20:46 10:20:48 10:20:52 10:20:52



A. No, sir. 10:20:56

Q. Now, I have talked to you about the study you are starting and these that you got involved in both in your fellowship, and I want to go back to that a little bit. 10:21:02 10:21:04 10:21:08 10:21:08

But first let me ask you, have you made any proposals to drug companies or others that might provide funding to do any additional studies that are under consideration? 10:21:10 10:21:14 10:21:18 10:21:18

A. In approximately 1992 or 3 I submitted a written proposal to Merck Sharpe & Dohme to possibly look at not only cholesterol lowering but to combine that with antioxidant therapy in patients to see if it could have an effect on restenosis post-angioplasty, 10:21:32 10:21:38 10:21:42 10:21:48 10:21:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

and they decided not to fund that study. 10:21:56

Q. Have you submitted that to anyone else? 10:22:02

A. No. 10:22:02

Q. What were you -- why were you interested in the role of antioxidants? 10:22:06 10:22:08

A. There is a number of things that have come in the popular press and some things that we base our things on, things that we see clinically with patients. 10:22:16 10:22:22 10:22:26 10:22:26

We do not do bench research and we -- our font of researches comes from our patient 10:22:34 10:22:36



interactions. 10:22:36

And the question arose, since -- whether cholesterol lowering, itself, caused a change in what we call restenosis or the scarring post-angioplasty, which was the -- a clinical dilemma in the field of angioplasty. 10:22:40 10:22:44 10:22:46 10:22:52 10:22:56

The question is, was there -- in patients who will be given cholesterol lowering to try and -- and Merck was interested in -- was actually having a large national trial that we were not part of looking at that area. 10:22:58 10:23:04 10:23:08 10:23:10 10:23:10

The question became not only cholesterol lowering, but if you combine something else with cholesterol lowering to decrease the inflammation at the site of -- the site, could it have an effect on that. 10:23:16 10:23:18 10:23:22 10:23:26 10:23:26

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 17 | Q. | Have others done research on a project that would be | 10:23:40 |
| 18 | | similar to the proposal that you made to Merck? | 10:23:44 |
| 19 | A. | Since that time? | 10:23:44 |
| 20 | Q. | Since that time. | 10:23:46 |
| 21 | A. | There have been, just watching the literature, some | 10:23:48 |
| 22 | | similar type things, looking mostly in animal | 10:23:54 |
| 23 | | models. | 10:23:54 |
| 24 | Q. | So that's still, you think, perhaps a viable project | 10:24:04 |
| 25 | | down the road? | 10:24:04 |



| | | | |
|---|---|---|---|
| 1 | A. | I don't know. I mean, it was something that we were | 10:24:06 |
| 2 | | interested then and we have kind of moved our | 10:24:10 |
| 3 | | interests onward since then. | 10:24:12 |
| 4 | Q. | Okay. What have your interests moved on to, or | 10:24:16 |
| 5 | | onward from? | 10:24:16 |
| 6 | A. | Well, our patient volume, you know, continues to | 10:24:22 |
| 7 | | grow and we focus on things that are every day, | 10:24:30 |
| 8 | | working with clinical treatment of patients and how | 10:24:32 |
| 9 | | to do it as efficiently as possible. | 10:24:34 |
| 10 | Q. | So what, then, has -- and, of course, you have spent | 10:24:38 |
| 11 | | more time now with this patient and it's built up, | 10:24:46 |
| 12 | | as you say. | 10:24:46 |
| 13 | | What are your current focuses in terms of | 10:24:50 |
| 14 | | clinical research? | 10:24:52 |
| 15 | A. | Our biggest focus at this time -- and, again, we | 10:24:58 |
| 16 | | spend -- we are primarily clinicians, we are not | 10:25:02 |
| 17 | | researchers -- is the appropriateness of care, which | 10:25:10 |
| 18 | | led us into working with primary care physicians | 10:25:16 |
| 19 | | closely and so that patients are treated most | 10:25:22 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

appropriately and efficiently for whatever disease state they present with. 10:25:26 10:25:28

Q. Is this a group focus or your particular focus, or both? 10:25:36 10:25:36

A. Both. 10:25:36

Q. Okay. And do you have, then, research proposals or 10:25:44



research projects underway that would relate to improving the appropriateness of care in working with primary care physicians? You talked about the database on chest pain. 10:25:46 10:25:48 10:25:52 10:25:54

A. That is primarily our focus through that database and up. 10:25:58 10:25:58

Q. And as you said, it's your hope that that can be expanded or -- beyond that one clinical situation? 10:26:02 10:26:04

A. Yes, sir. 10:26:06

Q. Now, primary care physicians, are we talking about internists and family physicians, principally? 10:26:10 10:26:14

A. Yes, sir. 10:26:14

Q. Educate me a little bit more on what you mean by "appropriateness of care" and "primary care physicians." 10:26:22 10:26:24 10:26:24

Are you trying to augment their ability to treat cardiac and cardiovascular complaints or -- 10:26:26 10:26:30

A. Yes, sir. 10:26:32

Q. -- is it something else? 10:26:32

A. What the ideal situation would be, that the patient who can be best treated in a primary care setting is 10:26:38 10:26:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

treated there and the patient who is best treated in the special setting is treated there. 10:26:48 10:26:50

Q. And so to try to explore this a little bit further, then there has to be some way of classifying 10:27:00 10:27:02

patients as to whether they can best be treated in the primary care setting or best be treated by the specialist, right? 10:27:06 10:27:10 10:27:12

A. I guess if you look at populations, that could be said to be true. 10:27:18 10:27:18

Q. I am just trying to get a handle on how you are going to put together this appropriateness of care and what you are actually doing. 10:27:22 10:27:24 10:27:26

A. It's a very difficult and complex -- we could spend the entire 12 hours explaining it, if you would like me to, but it's a -- you know, books and a lot of things have been written on it. 10:27:32 10:27:34 10:27:40 10:27:42

It's our attempt in our practice, you know, in our own small way within the clinical practice to facilitate that and, again, it's in a somewhat embryonic stage. 10:27:46 10:27:50 10:27:56 10:27:56

Q. This is a new thing on the medical scene now or a new concept or a revitalized concept? 10:28:00 10:28:04

A. It's -- it's always been there but it's become more important. 10:28:12 10:28:12

Q. Does it have anything to do, its importance, with the changes in the managed care situation and the different incentives that are now afforded to physicians and the way they practiced a few years 10:28:16 10:28:20 10:28:24 10:28:28

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

ago? 10:28:28

A. Yeah, I think that there are things that could be said as far as incentives go, but we have tried to focus instead of any financial models at all, as far as what a best practice of medicine is. 10:28:30 10:28:34 10:28:38 10:28:40

Q. We don't want to take 12 hours of your time to have you talk about this because as I recall, that's not directly referenced in your expert report, which we are going to identify and talk about in a few moments. 10:28:48 10:28:50 10:28:54 10:28:56 10:28:56

But is there a textbook or -- you said there were textbooks published. Is there something that you could give us as a reference so that we could take a look at that on our own time that would enable us to be at least somewhat educated in that area? 10:28:58 10:29:00 10:29:04 10:29:08 10:29:10 10:29:12

A. There is not like one textbook on this because it is a developing field, and by the time the textbooks seem to get printed, they are out of date. 10:29:20 10:29:22 10:29:24

I think the book chapter that we talked about that is referenced in that whole book, the -- in the -- that we afforded to you and the rest of that book would talk a lot about a number of the issues that are represented there. 10:29:28 10:29:34 10:29:38 10:29:42 10:29:44

Q. Okay. What book? That book was one of your references to your report? 10:29:48 10:29:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yeah. And we submitted that -- 10:29:54
Q. Braunwald's book? 10:29:56
A. No. Let's see. I know that we -- the book chapter that's in my -- I don't see it here in my CV. I apologize. 10:30:08 10:30:14 10:30:16
Q. Yeah, we got -- just so you don't stumble around there looking for it, we did get a supplemental letter dated July -- fax, rather, dated July 28, 1997, that gave us some additional information that hadn't been furnished earlier, and there is a chapter -- 10:30:18 10:30:22 10:30:26 10:30:30 10:30:32 10:30:32
A. Yeah, that book, I think, is probably one of the more recent publications that covers a number of issues as far as appropriateness and outcomes. 10:30:34 10:30:36 10:30:40
Q. Okay. Let me just -- I am going to put it in front of you here and just simply ask you if the book that you are referring to is published -- or the author is Dixon M. -- 10:30:44 10:30:48 10:30:50 10:30:52
A. That's the book chapter. 10:30:54
Q. The book chapter, and it's from a book published by the American Hospital Association, 1996, and the chapter is on medical effectiveness and outcomes management? 10:30:56 10:31:00 10:31:02 10:31:02
A. Right. I think that would be a good general -- and the rest of the book, a good general source to 10:31:06 10:31:10



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

educate yourself on that. 10:31:12

Q. Now, how, then, do your efforts of preventive cardiology relate to this new corporate focus on appropriateness of care? 10:31:18 10:31:22 10:31:22

A. I don't think it's a corporate focus on appropriateness of care. I think it's a medical focus on appropriateness of care. 10:31:26 10:31:28 10:31:30

Q. Focus of your group is what I meant by "corporate focus." I am sorry. A group focus on appropriateness of care. 10:31:32 10:31:36 10:31:38

A. My feeling is that preventive cardiology -- that everybody who practices medicine is a preventive cardiologist, and that whether a patient presents to a primary care physician or a cardiologist, the issues of prevention need to be raised, and with that, we would like to share what we do with the primary care physicians. 10:31:42 10:31:46 10:31:50 10:31:54 10:31:58 10:32:08 10:32:12

At the same time we have a lot to learn from what they do in their everyday practice, and so there is a sharing of knowledge for the betterment of medical care. 10:32:14 10:32:18 10:32:20 10:32:20

Q. Okay. And so, again, we don't want to take too much of the time on this, but I need to understand what you are spending your time on. 10:32:28 10:32:30 10:32:32

What, then, are you doing in your 10:32:34



day-to-day or month-to-month work to get this process further developed? 10:32:40 10:32:46

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

I mean, are you, for instance, making talks to primary care physicians where you communicate what you have learned in your practice and ask them what they have learned in theirs, or do you have a computerized system underway, or are you writing articles or giving TV shows or --

A. All of the above. However, we can educate a primary care physician, and most importantly, the patients, about their responsibilities for health care. Then we will try and access that.

This is one that we have talked about the appropriateness criteria. It's one facet of many facets that we looked -- again, focusing on best practice model.

I do give talks to primary care physicians. I do give talks to, you know, general groups. We -- you know, I will field two to three phone calls a day, usually, with preventive cardiology questions, whatever it takes to help.

Personally and at the Minneapolis Heart Institute we have been successful in our cardiovascular practice because we have been a supporter of both primary care physicians' and



patients' angioplasty.

Q. Now, you said that in -- the most information or the research that you have been involved in are clinical trials with respect to the actual patients that you have seen there here in Minneapolis.

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Is any of them based on the other places where these cardiologists go? We talked about this one hospital 100 miles away. 10:35:04 10:35:06 10:35:10

A. Uh-huh. 10:35:12

Q. But is most of the data that you accumulate on patients generated from the patients that are seen here at Minneapolis? 10:35:12 10:35:16 10:35:16

A. Yes, sir. 10:35:18

Q. Now, how much of your professional time is devoted -- and you have listed a number of things, activities -- to preventive cardiology in one form or fashion? 10:35:30 10:35:34 10:35:38 10:35:38

A. Approximately 15 percent. 10:35:40

Q. Now, do you see patients, yourself, at any of these centers other than at Minneapolis? 10:35:58 10:36:00

A. Yes, sir, we go to 28 sites in Minnesota and Western Wisconsin, our heart group does. 10:36:04 10:36:06

Q. And so do you, personally, do -- 10:36:08

A. I, personally, do outreach in probably half a dozen. 10:36:14

Q. Now, are these different places that you go, are they like cardiology centers? Do they see patients on referral, then, from family physicians and primary care physicians? 10:36:22 10:36:26 10:36:28 10:36:30



A. These are primary care centers that we go to, and anywhere from once a week to once a month to see consultative cardiology patients in consultation. 10:36:32 10:36:36 10:36:42

Q. Describe for me what that means. These are patients 10:36:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

that are referred by their family doctor? 10:36:46

A. By their primary care physicians for cardiology consultation. 10:36:54 10:36:56

Q. So rather than have the patient come to Minneapolis, you go out to wherever they happen to be on a monthly basis? 10:36:58 10:37:00 10:37:00

A. Yes, sir. 10:37:02

Q. And do you accumulate, then, data in terms of their clinical course which becomes part of your data bank in Minneapolis? 10:37:08 10:37:12 10:37:12

A. At the present time only if they come to Minneapolis or -- or to the Heart Institute or Abbott Northwestern. 10:37:20 10:37:24 10:37:26

The New Ulm patients in this alpha test, which, again, I think comprises a very small part of our practice, are entered into the database at the site in New Ulm. 10:37:32 10:37:36 10:37:40 10:37:40

Q. Okay. I think you have said that education of 10:37:48



patients and primary care physicians is a big effort on behalf of your group, or by your group? 10:37:54 10:38:00

A. Yes, sir. 10:38:00

Q. Right. Now, we have talked about the presentations that you regularly make to civic groups and sponsored by the foundation. 10:38:06 10:38:08 10:38:12

A. Arranged by the foundation. 10:38:14

Q. Arranged by the foundation. Okay. And the foundation is a -- 10:38:18 10:38:20

A. A 501(c)(3) not for profit foundation. 10:38:24

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 11 | Q. | Okay. But you are actually a member of the | 10:38:30 |
| 12 | | foundation? | 10:38:30 |
| 13 | A. | Yes. | 10:38:32 |
| 14 | Q. | Okay. And then you actually speak at programs | 10:38:36 |
| 15 | | sponsored by that foundation? | 10:38:38 |
| 16 | A. | Arranged by. | 10:38:38 |
| 17 | Q. | Arranged by the foundation. | 10:38:40 |
| 18 | | And the people that you speak to on | 10:38:44 |
| 19 | | programs arranged by the foundation are principally | 10:38:48 |
| 20 | | physicians or laypersons? | 10:38:50 |
| 21 | A. | Primarily, the foundation, I would say 80 percent of | 10:38:56 |
| 22 | | the foundation events are to the lay and 20 percent | 10:39:02 |
| 23 | | are to physicians. | 10:39:04 |
| 24 | Q. | Okay. And the lay people where you would speak, you | 10:39:14 |
| 25 | | mentioned organizations, social and professional | 10:39:16 |



| | | | |
|---|---|---|---|
| 1 | | clubs like the Kiwanis Club. What are the other | 10:39:22 |
| 2 | | examples? | 10:39:22 |
| 3 | A. | Oh, certain employment groups, such as Honeywell, is | 10:39:26 |
| 4 | | a health-focus type program that we usually present | 10:39:38 |
| 5 | | at once a year and those types of things. | 10:39:42 |
| 6 | Q. | Okay. Any other employers that you talk with or at | 10:39:50 |
| 7 | | programs arranged by the foundation? | 10:39:52 |
| 8 | A. | You know, the kind of employers around town, | 10:39:58 |
| 9 | | historically, Seagate, Control Data, you know, we | 10:40:08 |
| 10 | | have a number of -- we have a very good relationship | 10:40:12 |
| 11 | | with a number of corporate Minneapolis-St. Paul | 10:40:14 |
| 12 | | corporations. | 10:40:16 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 13 | Q. | And these -- when you -- these are presentations | 10:40:20 |
| 14 | | that you make, personally? | 10:40:20 |
| 15 | A. | Yes. | 10:40:22 |
| 16 | Q. | Is it generally made, each presentation, by one | 10:40:24 |
| 17 | | cardiologist? | 10:40:26 |
| 18 | A. | Yes, and other cardiologists do the same thing I do. | 10:40:30 |
| 19 | Q. | That was my next question. You have other | 10:40:32 |
| 20 | | cardiologists in your groups that also make these | 10:40:34 |
| 21 | | presentations? | 10:40:36 |
| 22 | A. | Yes, sir. | 10:40:36 |
| 23 | Q. | Is there a difference between the program that you | 10:40:40 |
| 24 | | might present to the lay people or the employers | 10:40:42 |
| 25 | | versus the program that you would present to the | 10:40:46 |



| | | | |
|---|---|---|---|
| 1 | | physicians? | 10:40:46 |
| 2 | A. | Yes, sir. | 10:40:48 |
| 3 | Q. | And how are they different? | 10:40:52 |
| 4 | A. | The physicians' presentations would tend to focus | 10:41:02 |
| 5 | | more on issues that would be more technical that | 10:41:12 |
| 6 | | physicians would understand. | 10:41:14 |
| 7 | Q. | Now, in these presentations you are dealing with | 10:41:24 |
| 8 | | preventive cardiology, right? | 10:41:26 |
| 9 | A. | Predominantly. | 10:41:26 |
| 10 | Q. | Both primary and secondary prevention? | 10:41:30 |
| 11 | A. | Yes, sir. | 10:41:30 |
| 12 | Q. | Okay. And then for the lay people, the people that | 10:41:38 |
| 13 | | don't have any particular medical training or | 10:41:40 |
| 14 | | education, you would have a less technical program? | 10:41:42 |
| 15 | A. | Yes, sir. | 10:41:44 |

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: https://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 16 | Q. | Okay. You would have slides and overheads and | 10:41:48 |
| 17 | | videos and -- | 10:41:52 |
| 18 | A. | Yes. | 10:41:52 |
| 19 | Q. | -- that type of thing? | 10:41:54 |
| 20 | A. | Yes. | 10:41:54 |
| 21 | Q. | Okay. Tell me, when is the most recent time that | 10:41:58 |
| 22 | | you have made a presentation to the Kiwanis Club or | 10:42:00 |
| 23 | | other group of lay people? | 10:42:02 |
| 24 | A. | Oh, I think it was in May. | 10:42:08 |
| 25 | Q. | May of this year? | 10:42:10 |



| | | | |
|---|---|---|---|
| 1 | A. | Yes. | 10:42:12 |
| 2 | Q. | And which group was that? | 10:42:14 |
| 3 | A. | The most recent was the presentation to a Honeywell | 10:42:18 |
| 4 | | group of employees. | 10:42:20 |
| 5 | Q. | These would be people that would have no particular | 10:42:22 |
| 6 | | medical knowledge? Honeywell is a computer company? | 10:42:26 |
| 7 | A. | Right. | 10:42:26 |
| 8 | Q. | And what kind of -- what topics do you cover and -- | 10:42:30 |
| 9 | A. | Usually I will talk about general issues of the | 10:42:42 |
| 10 | | development of coronary artery disease, educating | 10:42:48 |
| 11 | | people as to the causative effects of coronary | 10:42:50 |
| 12 | | artery disease and educating them to if they have | 10:42:54 |
| 13 | | some of those causative effects, that -- what they | 10:43:00 |
| 14 | | can do to stay out of our coronary care unit. | 10:43:06 |
| 15 | Q. | Okay. And you have, then, overheads, and so forth, | 10:43:20 |
| 16 | | that talk about different facets of this? | 10:43:24 |
| 17 | A. | Yes. | 10:43:24 |

http://legacy.library.ucsf.edu/tid/msn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. Okay. And is this a -- I don't want to use the word package, but a presentation that you have already assembled and that you can give to one group and six months later you can update it if that's necessary and then give it to another group? 10:43:28 10:43:30 10:43:34 10:43:36 10:43:38

A. I usually vary the presentations depending on the group and what their particular requests or needs are. 10:43:42 10:43:42 10:43:44



Q. And the one we are talking about here is kind of the one that you would start with and you might make a modification depending upon the particular request or group? 10:43:46 10:43:50 10:43:52 10:43:52

A. Uh-huh. 10:43:54

Q. But this would be -- what we are talking about is a typical presentation you might make to a group of lay people that work at Honeywell or somewhere? 10:43:58 10:44:00 10:44:02

A. Yes. 10:44:02

Q. Now, in that presentation do you talk about the elevated cholesterol risk of cardiovascular disease? 10:44:08 10:44:18

A. Yes. 10:44:22

Q. Did you become interested in that subject during the time that you were participating in your fellowship? 10:44:24 10:44:28

A. I became interested in preventive cardiology during my, I guess, college into medical school and focused in the residency program at Hennepin County Medical Center because at the time cardiology was focused on treating people after they had had a heart attack. 10:44:36 10:44:44 10:44:46 10:44:52 10:44:54

And after -- and I saw an opportunity in 10:45:02

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

the areas of smoking and high cholesterol, predominantly, of having an impact as far as, number 1, preventing the patients from coming to the coronary care unit; number 2, keeping them from coming back again. 10:45:06 10:45:12 10:45:14 10:45:20 10:45:22

Q. So you became interested in this in college, this preventive cardiology, or what became preventive cardiology? 10:45:26 10:45:28 10:45:28

A. Well, just -- it seemed -- looking at -- beginning to looking at things, there is the focus on seeing a certain amount of patients in a day and then there is the focus on changing the kinds of patients that you see over a period of time, and -- 10:45:32 10:45:40 10:45:42 10:45:48 10:45:52

Q. Let me just make sure you answer my question. Did you say that you became interested in what became your focus on preventive cardiology when you were a college student and then later in your residency? 10:45:54 10:45:56 10:46:00 10:46:02 10:46:02

A. Preventive medicine. 10:46:04

Q. Preventive medicine. Okay. 10:46:06

A. And then as I began my residency and looked at the various subspecialities of internal medicine, it seemed that the opportunity of prevention in this area was great. 10:46:10 10:46:14 10:46:18 10:46:20

Q. Okay. Were you ever a smoker when you were in college? 10:46:22 10:46:24

A. No, sir. 10:46:24

http://legacy.library.ucsf.edu/tid/msn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

23 Q. Ever been a smoker? 10:46:24

24 A. No, sir. 10:46:26

25 Q. Ever had any member of your family had some kind of 10:46:28



1 cardiovascular event that you related in your own 10:46:32

2 mind to them being a smoker? 10:46:34

3 A. My mother had an angioplasty at age 78 and she was a 10:46:40

4 smoker, and suffered many of the consequences of 10:46:46

5 that. 10:46:46

6 Q. Did she successfully have that procedure? 10:46:50

7 A. Yes, sir. 10:46:50

8 Q. Is she still alive today? 10:46:54

9 A. No, sir. 10:46:54

10 Q. Okay. How about any other member of your family 10:46:58

11 have any kind of cardiovascular event that you would 10:47:02

12 associate with smoking? 10:47:04

13 A. My grandfather died in 1963 of either a sudden 10:47:14

14 cardiac event or a stroke, and he was also a smoker, 10:47:16

15 my mother's father. 10:47:18

16 Q. How old was he? 10:47:18

17 A. Sixty-one. 10:47:20

18 Q. Now, did going out to the facility in Colorado have 10:47:28

19 anything to do with your interest in preventive 10:47:32

20 medicine? 10:47:32

21 A. No, sir. 10:47:32

22 Q. What was the reason for that choice? 10:47:34

23 A. At the time when I started my internship, the -- 10:47:42

24 there was some question whether I was going to be 10:47:46

25 a -- I had some interest, also, in some surgical 10:47:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

subspecialty areas.

And when they asked for a commitment early in the year for a second year, I did not want to commit to a second year of internal medicine and then back out.

So rather than, you know, say something and then leave a space in the program if I decided to change early in the year, I decided that I would opt out for a year and then go from there.

Q. So when you were out in Colorado you practiced --

A. General medicine.

Q. -- general medicine? Now, then, in respect to this presentation for lay people we were talking about, would you describe for me what advice or information you provide in respect to various risk factors for cardiovascular disease.

A. As far as causative agents for coronary artery disease, I try and outline the things that people can do to change, you know, their risk factor profile, and --

Q. Let me just -- I don't want to interrupt, but I will come right back to it. Risk factor profile, that would be each unique individuals and what risk factors they might have for cardiovascular disease?

A. I think the causative agents add up to a summation

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

of a certain amount of risk, and that individual causative agents, then, add up to a certain amount of risk that an individual, you know, could have. 10:49:50 10:49:52 10:49:58

And we look at population data and then interventional trials looking at that population data. The strongest message, you know, that I give people is if you smoke, quit. And that's an absolute. 10:50:06 10:50:08 10:50:12 10:50:18 10:50:20

The second message is that people have to look at the amount of cholesterol that they have in their system. Everybody needs cholesterol in their system. Every cell wall in the body has cholesterol in it. It's just a question of balance of cholesterol. Looking at people who have diabetes mellitus, looking at people who have high blood pressure, those are the four major risk factors. And the ones that we can also impact on, somebody's age, partly their genetics. 10:50:24 10:50:28 10:50:30 10:50:36 10:50:40 10:50:46 10:50:48 10:50:58 10:51:02 10:51:08

As a clinician and coming from a clinical background and treating patients, we, you know, can't change our ages, unfortunately, but -- so those types of things. We focus on the things that we can change and very aggressively try and pursue those. 10:51:10 10:51:18 10:51:24 10:51:28 10:51:32 10:51:32

Q. Okay. Do you -- do you, during these outreach 10:51:46



presentations for lay people, ask them to complete 10:51:52

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

some type of survey on their health status and use that -- samples of that, for instance, as something you talk about? 10:51:56 10:51:58 10:51:58

A. At the biannual courses or programs that the foundation sets up that I routinely speak at, there is a program standard package, computerized program, that people are -- go through that assesses their cardiac risk. 10:52:10 10:52:16 10:52:24 10:52:28 10:52:30

Q. Okay. Who has developed this computer program? 10:52:36

A. I don't know what company. 10:52:40

Q. Your group has not done it? 10:52:42

A. No, it's a third-party computer program. 10:52:56

Q. Tell me again a little bit more -- not again, but a little bit more about the biannual meetings. I made a note of them. Who attends and where are they? 10:52:58 10:53:02 10:53:04

A. Usually from 1 to 300 lay people that the Heart Institute Foundation. They will be in a -- anywhere from a church to a hotel auditorium, in different parts of the Twin Cities area. 10:53:10 10:53:14 10:53:24 10:53:26

Q. Okay. These are -- you did tell us about this, and people come and there is a computer program that they can evaluate themselves, more or less; is that right? 10:53:30 10:53:32 10:53:36

A. They fill out a form at the first visit. They have 10:53:44



their blood taken. They furnish a height and a weight and smoking history, et cetera, and the computer program, then, list gives them a certain 10:53:46 10:53:58 10:54:00

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

point score about their cardiac risk. 10:54:06

Q. I am just trying to understand how this works. 10:54:10

I have seen, you know, physicians put on 10:54:14
periodic programs in their specialties where they 10:54:18
have people come in for some kind of evaluation in 10:54:20
different kinds of specialty, not just cardiology. 10:54:22

Is this the kind of thing or are these 10:54:24
patients that you already have a relationship with 10:54:26
because they have been to the Heart Institute? 10:54:28

A. These are all-comers. Most of these patients -- 10:54:36
most of these people are not our patients and will 10:54:40
never be our patients. We do this as a community 10:54:42
service. 10:54:44

Q. So is this something that is arranged by the 10:54:46
Abbott Northwestern Hospital? 10:54:48

A. This is arranged by the Minneapolis Heart Institute 10:54:52
Foundation.

Q. Okay. And so this is made -- the availability of 10:54:56
this service is made public in newspapers and public 10:55:00
media? 10:55:00

A. I am not exactly certain all of the avenues that 10:55:06
they advertise it, but there is certain promotional 10:55:10



things to advertise it. 10:55:12

Q. And there is no criteria defining who shows up other 10:55:16
than who is interested and who will come to the 10:55:18
meeting? 10:55:18

A. Yes, sir. 10:55:20

Q. So as you say, it's all-comers? 10:55:22

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Anybody. 10:55:24

Q. Okay. So tell me about what they fill out. It's a form, you say? 10:55:28 10:55:30

A. They fill out a computerized form asking them about their various potential causative factors of coronary artery disease. 10:55:32 10:55:38 10:55:40

Q. And tell me, you said it asked for a number of different items of information. 10:55:48 10:55:50

A. Yes, sir. 10:55:50

Q. I assume there is some logical ones. Age? 10:55:54

A. I -- you know, I can't detail it because I haven't looked at it in quite some time, but the standard, you know, major risk factors as far as smoking, hypertension, cholesterol status, age, history of previous or known myocardial events. 10:56:00 10:56:04 10:56:10 10:56:18 10:56:22

Q. Weight? 10:56:22

A. And I am not sure about weight on this particular form. 10:56:28 10:56:28

Q. I thought you said height and weight was on it 10:56:32



before. 10:56:32

A. I thought it did, but -- and I think I did, but I am not sure. As I think about it again, this is the risk of looking at something that we don't have here, and -- but it's a -- it's based on data from, I think, the Framingham trial. 10:56:34 10:56:38 10:56:42 10:56:50 10:56:54

Q. Okay. And so they complete this form prior to the meeting or when they show up at the meeting? 10:56:58 10:57:00

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. There are four or five sessions usually, and the patients come -- or the -- not patients, the populous comes the first time there is a filling out the form, drawing of the blood, and then in the subsequent weeks they get further information, and as the data is then processed, their forms, they are fed back those in maybe the third or fourth week. 10:57:04 10:57:08 10:57:16 10:57:22 10:57:24 10:57:28 10:57:30

Q. Oh, so this is more than just showing up for one meeting? 10:57:34 10:57:34

A. This is a series of four meetings. 10:57:36

Q. Okay. And are three of the meetings, then, devoted to data collection? 10:57:42 10:57:44

A. No, just the first one. The others are educational meetings. 10:57:46 10:57:46

Q. Okay. All right. So they come in, they have -- they fill out what, in effect, is a history, computerized partial history, computerized format, 10:57:50 10:57:56 10:58:00



right? And this data is accumulated. 10:58:06

Do they have their blood drawn at that initial meeting? 10:58:06 10:58:06

A. To the best of my knowledge, yes. 10:58:08

Q. And the technicians draw this blood, and the purpose is to evaluate it for -- 10:58:10 10:58:12

A. Blood cholesterol. 10:58:14

Q. Because many people don't necessarily know their blood cholesterol, right? 10:58:18 10:58:20

A. That's right. 10:58:22

Q. Okay. Are there any other procedures at that time 10:58:28

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

other than drawing blood? Do they test urine or anything like that? 10:58:32 10:58:34

A. No, sir. 10:58:36

Q. Okay. And then this is done and then there is another meeting? 10:58:38 10:58:38

A. There is -- 10:58:40

Q. Several? 10:58:42

A. -- three or four additional -- three -- 10:58:44

Q. Have you spoke at these meetings? I don't want to ask you about something you don't know. 10:58:46 10:58:48

A. I just speak at one of them. 10:58:48

Q. You speak at the final meeting? 10:58:50

A. I -- 10:58:52

Q. The accumulation of all of it, you are at the end of it? 10:58:56



A. It's not always the final meeting. I mean, I may speak -- -- I don't speak at the first one because the data is back by the time I speak. 10:59:00 10:59:02 10:59:04

Q. Okay. So by the time you speak, you are able to review the data on whoever showed up, the 2 or 300 people that showed up for the meeting? 10:59:08 10:59:12 10:59:12

A. I review causative factors with them. They have the data at that time. We do not -- this is not any medical or individualized medical assessment of the patients. 10:59:18 10:59:22 10:59:26 10:59:26

Q. Okay. So you don't -- although this data is accumulated, you don't focus on a particular patient 10:59:32 10:59:34

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

and say, well, you have got this cholesterol, you have got diabetes, you smoke, you ought to be thinking about changing these things, you talk to the group? 10:59:36 10:59:38 10:59:42 10:59:42

A. 1 to 300 people. 10:59:44

Q. Okay. Now, who on these other occasions speaks? Are they cardiologists or preventive care physicians or -- 10:59:50 10:59:54 10:59:54

A. Some will speak on stop smoking, others will speak on exercise, and different potential causative agents of coronary artery disease. 10:59:58 11:00:08 11:00:12

Q. Okay. Let's see if we can't pin down people who 11:00:16



speak. There would be people who would speak on the value of exercise in respect to the diminishment of your risk for cardiovascular disease? 11:00:18 11:00:22 11:00:24

A. There would be people -- I don't attend those sessions so I can't really speak to what they speak of. There are exercise physiologists who speak, there are nutritionists who speak. 11:00:30 11:00:32 11:00:38 11:00:40

Q. Now, go ahead. 11:00:46

A. And there may be a physician who talks about, you know, the process of what happens with -- explains a little bit about what actually happens with the development of coronary artery disease and the various implications of that. 11:00:52 11:00:58 11:01:00 11:01:04 11:01:08

Q. Is that someone for your particular group? 11:01:08

A. It would probably be that, yes. 11:01:10

Q. Okay. How long do each one of these meetings go? 11:01:16

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

A. Approximately 45 minutes. 11:01:18

Q. All right. So if I made my notes accurately, you or another cardiologist speaks, at some point a nutritionist, someone talks on stop smoking, there is an exercise physiologist and at least a physician who talks about the development of cardiovascular disease? 11:01:24 11:01:30 11:01:34 11:01:36 11:01:40 11:01:42

A. That would be, I think -- with two programs running a year for the past five years, the content can 11:01:46 11:01:50



obviously vary, but that would be a typical scenario. 11:01:54 11:01:56

Q. Okay. Now, have you been in charge of putting together the program or -- 11:01:58 11:02:00

A. No, sir. 11:02:00

Q. Is there a person within your group that does that? 11:02:04

A. There is a head of the education department at the Heart Institute Foundation. 11:02:08 11:02:12

Q. Okay. And who was that? 11:02:14

A. His name is George Kroeninger, K-R-O-E-N-I-N-G-E-R, I believe. 11:02:22 11:02:22

Q. Do you more frequently than other cardiologists in your group speak at these biannual meetings? 11:02:32 11:02:34

A. Being that I am director of preventive cardiology, I am the -- I tend to speak more often on that subject. 11:02:38 11:02:46 11:02:46

Dr. Welge, who is associate director of preventive cardiology, usually also shares some of 11:02:48 11:02:54

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

the speaking responsibilities. 11:02:56

Q. Okay. Would you give us his full name or her full name. 11:02:58

A. Dr. Barry, B-A-R-R-Y, Welge, W-E-L-G-E. 11:03:04

Q. He is also a cardiologist within your organization? 11:03:06

A. He is an internist with training in cardiology who specializes or focuses on prevention. 11:03:12

Q. So he is not board certified in the subspecialty of cardiology? 11:03:20

A. No. 11:03:20

Q. Okay. So let's -- you are there. These 2 or 300 people are presumably mostly lay people? 11:03:30

A. Yes, sir. 11:03:32

Q. Although you don't, I take it, know exactly whether or not they have had medical training, but I assume most of the people that come have not; would that be a fair assumption? 11:03:38

A. I can't really say, but -- 11:03:46

Q. Do you give them -- present to them pretty much the same presentation information you would to a corporate group, like at Honeywell or Control Data? 11:03:48

A. The presentations that I make at the -- these meetings will often anticipate specific questions from the survey that they have filled out. 11:04:02

Q. So to some extent, your presentation is specifically geared to what you have learned in this initial survey that they have -- is the survey the same thing as the computerized form? 11:04:22

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 22 | A. | Yes, whatever. | 11:04:30 |
| 23 | Q. | So you may gear your remarks specifically to some of | 11:04:34 |
| 24 | | the things that are revealed on the accumulation of | 11:04:36 |
| 25 | | knowledge from those 2 or 300 people? | 11:04:40 |



| | | | |
|---|---|---|---|
| 1 | A. | No, I do not know specifically any of the data that | 11:04:42 |
| 2 | | has come back. | 11:04:44 |
| 3 | Q. | Oh, okay. | 11:04:46 |
| 4 | A. | This is so that they will have, obviously, questions | 11:04:48 |
| 5 | | relating to those things. The general areas as far | 11:04:54 |
| 6 | | as causative agents, of course, are the same whether | 11:04:56 |
| 7 | | you talk to a group of employees in the daytime or | 11:05:02 |
| 8 | | that same group of employees who are now attending a | 11:05:06 |
| 9 | | course in the evening. | 11:05:06 |
| 10 | Q. | Okay. So you are responsive to whatever the | 11:05:12 |
| 11 | | questions that the audience ask? | 11:05:14 |
| 12 | A. | Try to be. | 11:05:14 |
| 13 | Q. | And these people, by the time you meet with them, | 11:05:18 |
| 14 | | they have received back some type of evaluation | 11:05:20 |
| 15 | | based upon the data that they provided? | 11:05:22 |
| 16 | A. | Yes. | 11:05:24 |
| 17 | Q. | And the blood that they provided? | 11:05:26 |
| 18 | A. | Yes, sir. | 11:05:26 |
| 19 | Q. | So they have some -- they have information about | 11:05:28 |
| 20 | | whatever the total cholesterol level is in their | 11:05:32 |
| 21 | | blood and the good and bad, using layperson's | 11:05:36 |
| 22 | | terms -- | 11:05:36 |
| 23 | A. | Yes. | 11:05:38 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

24 Q. -- dividing it up? Okay. So they may ask specific 11:05:40
25 questions about that? 11:05:42

1 A. Yes, sir. 11:05:42
2 Q. Now, what do you tell these folks at this meeting 11:05:54
3 when they ask questions and when two or three say, 11:05:56
4 you know, my cholesterol level is higher than 200, 11:06:02
5 or whatever? I don't know what's on your form. 11:06:04
6 What is on your form as a normal cholesterol? 11:06:06
7 A. We -- there are national standards from the adult 11:06:10
8 treatment guidelines for patients with 11:06:14
9 hypercholesterolemia, and we adhere to the national 11:06:22
10 standards. 11:06:22
11 Talking -- we do not -- as I said 11:06:30
12 previously, this is not individual medical 11:06:32
13 consultations, and we encourage people to discuss 11:06:38
14 their own personal situation with their primary care 11:06:42
15 physician. 11:06:42
16 Q. Okay. So do you provide or does the information 11:06:48
17 they get provide them with whatever the figures that 11:06:52
18 are used for the national standard? 11:06:54
19 A. I am not aware -- I am not sure what the forms 11:07:00
20 exactly say. They give a rating scale of a certain 11:07:08
21 number for their cholesterol, and I am not sure 11:07:12
22 without looking at it if the adult treatment 11:07:14
23 guidelines are part of the literature they receive. 11:07:16
24 Q. Okay. Because they get handouts as part of the 11:07:20
25 attendance at this? 11:07:22

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes. 11:07:22

Q. Are these handouts that are prepared by the Heart Institute? 11:07:26

A. There are handouts that are prepared by the third-party provider as part of the computer package. There are also individual -- or handouts from the Heart Institute Foundation regarding causative factors for coronary artery disease, and so there is -- you know, this is an educative process and so they get a number of different handouts. 11:07:28 11:07:32 11:07:36 11:07:38 11:07:42 11:07:48 11:07:52 11:07:52

Q. Do you, as part of this, hand out booklets or pamphlets from the American Heart Association? 11:07:56 11:07:58

A. That very likely would be included. And, again, in a typical presentation or series of talks there would be articles from the American Heart Association included in that. 11:08:04 11:08:18 11:08:20 11:08:22

Q. So they would get handouts that were -- of materials that were provided by the American Heart Association, the foundation, okay, and any others? 11:08:26 11:08:30 11:08:36

A. The third-party -- 11:08:38

Q. That's right, the computer, provider of the computer program? 11:08:40 11:08:40

A. Right. 11:08:42

Q. What type of handouts -- who is the provider of the 11:08:44



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

computer program? 11:08:46

A. I don't know the company. 11:08:48

Q. What kind of handouts do they provide? 11:08:50

A. They provide -- again, I am playing off my memory so I can't say exactly, but general information regarding the point scoring system that they have used based on the Framingham Heart Study. 11:08:56 11:09:00 11:09:06 11:09:10

Q. I saw -- and I didn't send you because I couldn't put my fingers on it, and I thought it was published by a drug company that was in the business, among other things, of providing these cholesterol-lowering drugs, but I thought it had sort of the American Heart Association stamp on it, kind of a survey that's been published in books you -- magazines you see on airplanes. 11:09:12 11:09:16 11:09:20 11:09:22 11:09:24 11:09:28 11:09:32 11:09:36

Do you know what I am talking about there? 11:09:36

A. The American Heart Association, approximately four years ago, put out a worksheet that to help determine cardiac risk by -- based on the Framingham data weighting the various causative agents for coronary artery disease and stroke. 11:09:40 11:09:50 11:09:56 11:10:02 11:10:06

Q. And this is a worksheet. Is this one of the -- one I have seen, and I wondered if it's consistent with what you are talking about, has various kinds of data that you -- you know, starting with age and 11:10:10 11:10:12 11:10:16 11:10:22





talking about smoking and talking about cholesterol levels, and you get kind of a 1 or a 2 depending 11:10:24 11:10:28

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

on -- maybe it's a 3, as well, depending on which box you check. 11:10:32 11:10:32

Is this the type of thing that you are referring to? And then it comes up with a score? 11:10:34 11:10:36

A. Yeah, there are worksheets out there that have been, you know, put out there by the American Heart Association and I think, you know, as we go along here, as we talk more into kind of things, epidemiologic areas, I think this would probably be an area that would be best visited by the epidemiologists in this case. 11:10:44 11:10:46 11:10:50 11:10:52 11:10:54 11:10:56 11:11:00

Q. You being more comfortable working with the articles as opposed to a worksheet? 11:11:04 11:11:04

A. Excuse me? 11:11:06

Q. Would you be more comfortable examining some of the medical articles as opposed to this worksheet or survey form put out by the American Heart Association? 11:11:10 11:11:12 11:11:14

A. You know, we try and individualize patient care and look at each patient in our clinical practice. That's what, you know, it's all about is to give the best care to the best patient as they present. 11:11:22 11:11:26 11:11:30 11:11:34

However, the summation of those leads to, 11:11:40



you know, very powerful statistical analyses which I think, again, are best addressed by people who are experts in that area. 11:11:42 11:11:44 11:11:46

Q. Are you an expert in statistics? 11:11:48

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. I am not. 11:11:48

Q. You are not a statistician or a biostatistician? 11:11:52

A. Absolutely not. 11:11:54

Q. Okay. And what you focus on in your practice is an individual patient and whatever risk factors that they might have and what treatments and preventive medicine recommendations that you can offer them; is that right? 11:11:58 11:12:02 11:12:06 11:12:10

A. We take them one at a time when they come in the door. 11:12:16 11:12:16

Q. Okay. One more question on this survey or worksheet that you talked about and identified as the American Heart Association worksheet. 11:12:20 11:12:22 11:12:24

Did you have anything to do with the design or creation of that? 11:12:26 11:12:28

A. No, sir. 11:12:28

Q. Did you have anything to do with the design or creation of the computerized worksheet that is used in these biannual meetings and provided by this third-party provider? 11:12:34 11:12:38 11:12:40 11:12:42

A. No, sir. 11:12:42



Q. What is the nature of the third-party provider? Are they a medical company of some kind? 11:12:46 11:12:48

A. I really don't know, but they -- I presume -- I have always presumed that that was their business. But I am not involved in the organization or the hiring of these companies, so I really can't help you out on that. 11:12:54 11:13:00 11:13:00 11:13:04 11:13:04

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 8 | Q. | So this company comes in and works with the | 11:13:06 |
| 9 | | foundation in respect to this meeting? | 11:13:10 |
| 10 | A. | I think that they just -- there is no physical | 11:13:14 |
| 11 | | presence. I think they send their product. | 11:13:16 |
| 12 | Q. | Okay. With respect to the American Heart | 11:13:20 |
| 13 | | Association, I noticed on your CV which you have | 11:13:22 |
| 14 | | there in front of you, it's been marked as an | 11:13:24 |
| 15 | | exhibit, that you were the chair of the Physician | 11:13:28 |
| 16 | | Cholesterol Task Force for about three years? | 11:13:30 |
| 17 | A. | Yes, sir. | 11:13:32 |
| 18 | Q. | Tell me what that organization was about. | 11:13:34 |
| 19 | A. | Well, the Minnesota affiliate of the American -- | 11:13:40 |
| 20 | | these -- you know, 1989 and '88 was an era where | 11:13:44 |
| 21 | | people were just beginning to really accept that | 11:13:50 |
| 22 | | cholesterol was one of the causative agents of | 11:13:54 |
| 23 | | coronary artery disease. | 11:13:56 |
| 24 | | And with that, there was a lot of | 11:14:00 |
| 25 | | educational efforts being done at that time by the | 11:14:06 |



| | | | |
|---|---|---|---|
| 1 | | American Heart Association to help physicians -- | 11:14:12 |
| 2 | | educate physicians regarding the appropriate | 11:14:16 |
| 3 | | diagnosis and treatment of hypercholesterolemia. I, | 11:14:20 |
| 4 | | for a couple of years, essentially coordinated that | 11:14:22 |
| 5 | | effort. | 11:14:24 |
| 6 | Q. | So what, then, did that involve? | 11:14:28 |
| 7 | A. | It involved meetings with various districts of the | 11:14:38 |
| 8 | | Minnesota affiliate throughout the state. There | 11:14:42 |
| 9 | | were a couple of large physician educational | 11:14:44 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

meetings that were organized and, essentially, organizing those and arranging for speakers to come and overseeing the registration and just a whole host of things that would go along with that. 11:14:50 11:14:56 11:15:00 11:15:02

Q. Would you actually speak at these presentations? 11:15:04

A. I did speak at a couple of them. 11:15:06

Q. And what would you -- would you be telling them -- educating them about the -- as you say, the information that was becoming developed about high cholesterol and, also, the presence of these cholesterol-lowering medications? 11:15:10 11:15:14 11:15:18 11:15:20 11:15:22

A. I think not so much the cholesterol-lowering medications but the developing data at that time that cholesterol was a causative agent, that LDL cholesterol was -- especially for the publication of a couple of major trials, was involved in the 11:15:28 11:15:30 11:15:36 11:15:40 11:15:44



process of atherosclerosis, and then the interaction of those risk factors with other causative agents that could potentially, you know, lead to -- and basic -- implementing preventive programs in primary care settings. 11:15:50 11:15:56 11:16:00 11:16:06 11:16:06

Q. Preventative programs at that time would, what, relate to diet and weight reduction? 11:16:12 11:16:14

A. And, if necessary, pharmacologic therapy, but the programs generally were not focusing on pharmacologic therapy. 11:16:20 11:16:24 11:16:26

Q. Because those drugs were just becoming available at that time? 11:16:32

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. I think that was not the focus of them. The focus was to just put out the information, developing information from a number of large trials, about cholesterol and LDL cholesterol as a potential causative agent for coronary artery disease. 11:16:36 11:16:44 11:16:48 11:16:54 11:17:00

Q. And when you talked about high cholesterol as a causative agent to these groups back in 1989 and later, which particular studies would you site? 11:17:02 11:17:08 11:17:10

These were professional groups, so which particular studies would you advise them about? 11:17:12 11:17:18

A. The two major population studies that were looked at were the Lipid Research Clinic Trial that was published in 1986 and then the Helsinki Heart Trial, 11:17:28 11:17:32 11:17:44



which was published, I think, in 1989, and both had greater than 4,000 patients. 11:17:50 11:17:52

And so it had -- a fair amount of patients were followed for, in one study, nine years, and another study six years. 11:17:56 11:17:58 11:18:00

Q. Okay. So that would be -- you would discuss the data and conclusions that were made by the scientists and physicians based upon those particular trials? 11:18:04 11:18:06 11:18:10 11:18:12

A. Yes. 11:18:14

Q. Did you augment it with any data that you had accumulated within your own practice? 11:18:16 11:18:18

A. At that time I was just initiating myself into practice and did not have a -- did not have a 11:18:22 11:18:26

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

database from a clinical practice at that time. 11:18:30

Q. But your group had a database, I assume, the group that you had joined. Did you use any of that data? 11:18:34 11:18:36

A. No, sir. 11:18:38

MR. SHEPPARD: Okay. Let's take a break. 11:18:40

(A recess was taken.) 11:29:48

BY MR. SHEPPARD:

Q. We are back on the record and we have taken a break and we have had marked, Doctor, as Exhibit 1752, which states on the front Plaintiffs' Expert Report of Kevin J. Graham, M.D., and simply put that in 11:29:50 11:29:54 11:29:58 11:30:00



front of you and ask you to identify that. 11:30:02

A. So identified. 11:30:06

Q. That's your report? 11:30:08

A. Yes, sir. 11:30:08

Q. Okay. I take it prior to -- I am not trying to get into communications, necessarily, with lawyers, but prior to that you were advised that it was a requirement of jurisprudence that you submit an expert report that would cover the matters that you were going to testify about in front of the jury at trial? 11:30:14 11:30:16 11:30:18 11:30:24 11:30:26 11:30:30 11:30:30

A. Yes, sir. 11:30:32

Q. And you understood that that's, in large part, the purpose of this report? 11:30:34 11:30:34

A. Yes, sir. 11:30:36

Q. And you, when you prepared that report, did that with -- Exhibit 1752, you did that with that 11:30:40 11:30:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

knowledge in mind? 11:30:44

A. Yes, sir. 11:30:46

Q. And did you actually prepare that report or work with the lawyer to prepare it? 11:30:54 11:30:56

A. I prepared it independently. 11:30:58

Q. And I think that report, Exhibit 1752, is dated June 2nd -- 11:31:02 11:31:04

A. Yes, sir. 11:31:04



Q. -- of this year. Were there any prior versions of that report? 11:31:06 11:31:06

A. I went through one prior version of the report. 11:31:12

Q. Could you -- can you briefly describe whatever revisions or changes were made. 11:31:20 11:31:22

A. I did review it with Howard Orenstein. The only revisions were made -- none in the content, but in the arrangement of some of the -- where some of the things fell in the report. 11:31:26 11:31:32 11:31:38 11:31:40

Q. Okay. So there were no additions or subtractions to the content? 11:31:46 11:31:46

A. No. 11:31:46

Q. And you prepared that, then, on your own and that, in effect, is your testimony prepared by yourself? 11:31:48 11:31:52

A. Yes, sir. 11:31:52

Q. Did you have any particular items that you used as references or do you simply sit down and dictate or write out that report? I realize there are some articles that are referenced. 11:31:56 11:32:00 11:32:02 11:32:04

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Right. And those, obviously, you know, were referred to in the report, but the report talks to -- speaks to our -- my particular clinical practice, how patients, as I see them from my training and my eight and a half years of experience in practice, present with coronary artery disease, 11:32:08 11:32:16 11:32:22 11:32:26 11:32:32 11:32:36



the clinical sequelae of that, and the reasonableness of the Blue Cross and Medicaid involvement with them in the Minnesota population that we are involved with. 11:32:42 11:32:48 11:32:56 11:32:56

Q. Okay. And you had plenty of time to prepare the report, you weren't under the gun or rushed or anything? 11:33:00 11:33:02 11:33:02

A. I had fine time. 11:33:04

Q. And you, in that report, Exhibit 1752, you had nine references cited? 11:33:10 11:33:10

A. Yes, sir. 11:33:12

Q. Did you go back -- with the exception of the textbook, did you go back and read that data, the article? 11:33:14 11:33:18 11:33:18

A. The references? 11:33:20

Q. Yes. 11:33:22

A. Yes, sir. 11:33:22

Q. So you had those available to you when you put together your report? 11:33:26 11:33:28

A. Yes. 11:33:28

Q. Now, as an expert witness in this case are you aware you are entitled to make a charge for your 11:33:38 11:33:42

http://legacy.library.ucsf.edu/id/nsm35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

professional time? 11:33:42

A. Yes, sir. 11:33:44

Q. Okay. What is your arrangement in respect to that? 11:33:46

A. I am doing this without charge. 11:33:48

Q. So this is something that you will be making no charge for your deposition or for your trial testimony; is that right? 11:33:50 11:33:54 11:33:56

A. Yes, sir. 11:33:56

Q. Now, we were talking before the break about your early work in respect to educating physicians under the auspices of the American Heart Association, local branch, about what was going on with research involving persons who had high cholesterol. Right? 11:34:02 11:34:10 11:34:12 11:34:16 11:34:22

A. Yes. 11:34:24

Q. Pick up from there. What -- and you told us earlier that there were organizations that set the criteria in terms of what is a high or low cholesterol, right? 11:34:28 11:34:30 11:34:32 11:34:34

A. Yes, sir. 11:34:36

Q. Can you recall what the figures would be for a high or low cholesterol? 11:34:40 11:34:40

A. Regarding a lipid panel, the desirable cholesterol was less than 130 milligrams per deciliter. Points for starting dietary therapy were over 160 milligrams per deciliter, and depending on concomitant risk factors, causative agents for coronary disease, the -- depending -- and also 11:34:50 11:34:58 11:35:02 11:35:08 11:35:12 11:35:20

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

whether the patient had disease or not would 11:35:24

determine the aggressiveness of treating that 11:35:28
cholesterol and in a particular patient. 11:35:34
Q. Who was at that time setting the standard, the 11:35:38
figures? 11:35:38
A. The National Cholesterol Education Program sponsored 11:35:44
by the National Institutes of Health let forth or 11:35:54
set forth the initial cholesterol education 11:35:58
standards. 11:35:58
Q. Are they still the organization that is setting 11:36:02
those standards today that you follow? 11:36:02
A. The -- there has been a secondary modification of 11:36:08
those that, essentially, puts into play even more 11:36:14
aggressive treatment of lowering LDL cholesterol in 11:36:18
patients with known disease called the Adult 11:36:22
Treatment Guidelines that were in 1993. 11:36:24
Q. But by the same organization? 11:36:30
A. Yes, sir. 11:36:30
Q. Is that still the -- is it still that organization 11:36:34
that sets the standards that you follow today in 11:36:36
your practice? 11:36:38
A. The Adult Treatment Guidelines are the -- they have 11:36:40
been published. 11:36:40
Q. When did these medications, these -- to lower 11:36:54
cholesterol become available for physicians to use 11:36:56
with patients? 11:36:58

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Well, cholesterol-lowering medications, niacin has been used to treat cholesterol effectively for over 50 years. 11:37:04 11:37:08 11:37:10

The cholestyramine type treatments have been available for 30 to 40 years. Lopid or gemfibrizol has been available for probably 15 to 20 years. The class of medications called the statins that was referenced earlier have now been available for about ten years on -- in the marketplace. 11:37:16 11:37:20 11:37:26 11:37:34 11:37:38 11:37:42

Q. So they have, essentially, been available since the time just before you completed your fellowship? 11:37:48 11:37:52

A. Yes, sir. 11:37:52

Q. Now, if you or -- we talked in 1989 when you were doing presentations to physicians and talking about high cholesterol and what then recent studies had shown, the Helsinki Trial and the Lipid Research Trial. 11:38:02 11:38:06 11:38:14 11:38:20 11:38:20

If you were giving those same presentations today talking about that topic, would you reference that data or newer data, and if so, what data would you reference? 11:38:22 11:38:24 11:38:26 11:38:28

A. Those trials that I spoke of before were in the primary prevention area, and with that, they have been landmark -- remain landmark trials in that regard. 11:38:34 11:38:42 11:38:50 11:38:50



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Since that time there have been a number of secondary prevention trials that were published in the early 1990s looking at the lipid hypothesis in patients with known disease. 11:38:54 11:38:58 11:39:06 11:39:14

The -- probably the most quoted was the FATS, F-A-T-S, trial, Familial Atherosclerosis Treatment Study, from Dr. Greg Brown in Seattle, Washington. 11:39:18 11:39:26 11:39:30 11:39:32

It looked at -- it was an angiographic trial that looked at roughly 150 patients with known disease to try and show stabilization or regression with aggressive lipid lowering with Colestipol and niacin in one group, for lovastatin and niacin in another group, for standard care in a third group. 11:39:36 11:39:42 11:39:44 11:39:50 11:40:02 11:40:04

That, then, led to larger population base studies that have been published in the last couple of years. The largest and probably most oft quoted would be the 4-S study that was published in Lancet a couple of years ago, and the West of Scotland Trial that was published approximately a year and a half ago. 11:40:08 11:40:12 11:40:16 11:40:22 11:40:30 11:40:34 11:40:34

These are studies that certainly practicing cardiologists and almost all primary care physicians are well aware of. 11:40:40 11:40:46 11:40:48

Q. But those are the ones -- if they came up as a topic during your presentation, those are the ones that you would cite? 11:40:54 11:40:58 11:40:58

A. Those are the most -- probably the most often-cited 11:41:02



http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

studies. 11:41:02

Q. Where was the Dr. Brown work published? 11:41:06

A. In the New England Journal of Medicine. 11:41:08

Q. When did you become interested in the matter of secondary prevention? 11:41:16 11:41:18

A. As I stated earlier, in my residency at Hennepin County Medical Center I -- an acute care county hospital setting, we saw a lot of patients with acute presentations of coronary artery disease, and I was struck by the amount of them who had modifiable causative agents that would come back again without those agents or without those factors identified and treated. 11:41:28 11:41:34 11:41:40 11:41:44 11:41:48 11:41:56 11:42:06 11:42:10

Q. So you have been interested in that issue most of your career as a cardiologist? 11:42:14 11:42:18

A. Yes, even before I went into -- 11:42:20

Q. Even before you went in to become a cardiologist. Okay. 11:42:24 11:42:26

Now, you indicated that -- in your report that a part of your practice involves certain kinds of procedures involving the heart. 11:42:36 11:42:38 11:42:42

How much of your time is devoted to that? 11:42:46



A. I spend approximately ten weeks per year in the cardiocatheterization laboratory. 11:42:50 11:42:52

Q. This is kind of like a rotating assignment where you share the responsibilities for that? 11:42:56 11:42:58

A. There are three cardiologists on any given day in 11:43:00

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

our practice of 25 cardiologists who are doing catheterization procedures. 11:43:04 11:43:06

Q. And did you also indicate that you did some work with pacemakers? 11:43:14 11:43:16

A. I usually implant 20 to 30 pacemakers per year. 11:43:20

Q. Is that on some kind of rotation responsibility among your group or just happens to be patients that you have seen? 11:43:24 11:43:28

A. Some of my own personal patients and other patients in the group as time allows. 11:43:32 11:43:34

Q. Now, within your group or at Abbott Northwestern have they collected data that deals with hypercholesterol and do they use that data in the performance of their function as a physician? 11:43:52 11:43:56 11:44:02 11:44:04

A. Could you define "they" for me? 11:44:10

Q. You or your group. 11:44:12

A. Our group. We do collect data regarding cholesterol levels in certain groups of patients, but we return the patient to the primary care physician as a role of consultative cardiologists. 11:44:20 11:44:26 11:44:32 11:44:34



We do not usually follow the patients on a chronic basis. They are followed by the primary care physician. That's part of our group philosophy. 11:44:36 11:44:40 11:44:42 11:44:42

Q. Okay. So what use, if any, is made of that data, even after the patient returns to their primary care physician? 11:44:50 11:44:52 11:44:52

A. The data that is collected on certain groups of 11:45:02

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

patients as far as what their cholesterol is is used in aggregate to speak to what kind of job we, with our primary care physician partners, are doing treating patients, especially the patients with known disease. 11:45:08 11:45:16 11:45:18 11:45:24 11:45:28

Q. Why are they a particular focus? 11:45:32

A. From our standpoint, seeing the bottom of the funnel, if you would, from the standpoint of patients who make it to the hospital setting, we -- that gives us some indication of if they have had a previous event, if they are -- if we are working with our primary care partners in a good fashion to make sure that those patients get all of the causative agents addressed, did we get them to stop smoking, did we get their cholesterol treated, did we get them exercises, all of the things that will keep them from coming back again. 11:45:38 11:45:42 11:45:48 11:45:50 11:45:54 11:46:00 11:46:02 11:46:08 11:46:16 11:46:16 11:46:18



Q. This is a broad question. Is there a difference in terms of the preventive recommendations that you make if you are dealing with a person who has not had, as you say, a cardiac event, i.e., primary prevention, and a person who has had some kind of episode, i.e., secondary prevention, or is it pretty much the same regimen? 11:46:26 11:46:28 11:46:32 11:46:36 11:46:40 11:46:44 11:46:46

A. There is a difference. 11:46:50

Q. Okay. Tell me what the difference is. 11:46:52

A. Somebody who has had an event, there is now no 11:47:04

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

question that that patient's atherosclerosis has presented clinically, and that further presentations, especially if they have had a heart attack, are -- place them at even higher risk for sudden death or for worse outcomes long term. 11:47:10 11:47:16 11:47:20 11:47:34 11:47:40

The secondary prevention data has supported even more aggressive treatment of cholesterol lowering in this population in order to try and prevent -- in the -- I guess I should say a very high risk population in order to try and prevent further episodes, and the data has supported that the general issues that lower cholesterols are better. So in secondary prevention the stakes become even somewhat higher. 11:47:50 11:47:54 11:48:00 11:48:06 11:48:08 11:48:14 11:48:20 11:48:34 11:48:36

Q. Because the risk is higher because they have already had an event? 11:48:38 11:48:40



A. Yes. 11:48:40

Q. Now, then, does that mean that you use different guidelines in terms of cholesterol level when you are dealing with a situation or a patient with primary prevention needs versus secondary prevention needs? 11:48:46 11:48:48 11:48:52 11:48:56 11:48:56

A. It is a gradiated guideline that takes into whether the patient has known disease or not. It's all the same guideline, it's just the level of aggressiveness, depending on whether they have disease. 11:49:00 11:49:06 11:49:08 11:49:12 11:49:12

Q. Okay. Well, let me make sure that I understand as a 11:49:16

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

layperson. If I understand what you are saying in terms of aggressiveness with respect to high cholesterol, there is these medications, some of which have been available for years, but now the newer ones have been available about the last ten years, right? 11:49:22 11:49:24 11:49:26 11:49:30 11:49:32 11:49:34

A. (Witness indicating in the affirmative.) 11:49:36

Q. Right, that's one technique, right? 11:49:38

A. Yes. 11:49:38

Q. Diet, I assume, is a technique? 11:49:42

A. Yes. 11:49:42

Q. Okay. Recommended exercise is a technique? 11:49:46



A. If it's -- 11:49:48

Q. If it's suitable for that -- 11:49:50

A. Sure. 11:49:50

Q. All right. Now, what else, then -- are those the types of things, when you talk about an aggressive approach versus an approach you might use with primary, or are we talking about a more aggressive drug regimen? 11:49:56 11:50:00 11:50:02 11:50:04 11:50:06

A. I think that the risk of a second event is what we try and impress upon somebody who has had one event and that by taking away the injurious agents that could be leading -- or that are leading to, potentially, a second event, that you can have an impact on the disease progress. 11:50:14 11:50:20 11:50:28 11:50:32 11:50:36 11:50:42

Stopping smoking, if the patient is a 11:50:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

smoker, is the biggest thing that they can do in one year's time to decrease their risk. 11:50:46 11:50:50

And it's -- again, we would speak more to the epidemiologists to quantify that risk, but as a strong message to a patient who is sitting on the examining table and I am across from that patient, the biggest thing I tell them they can do in one year's time is to quit smoking. 11:50:54 11:50:58 11:51:02 11:51:04 11:51:08 11:51:10

Q. But let's assume you are dealing with a nonsmoker who has had a heart attack, he or she can't quit smoking because they don't smoke? 11:51:14 11:51:16 11:51:18



A. That's right. 11:51:20

Q. So what do you tell them in respect to what you can offer them and recommendations and treatments? 11:51:22 11:51:24

A. Aggressive lipid lowering, exercise, diet, weight loss, control of blood pressure if it's elevated; if they are diabetic, optimum control of the blood sugar. Those are the standard things that we would offer to most patients. 11:51:28 11:51:32 11:51:36 11:51:42 11:51:44

Q. Okay. Now, these would be the same things, to one degree or another, that you would have recommended to a patient that you had consulted with in respect to primary prevention? There may be different degrees, but -- 11:51:48 11:51:50 11:51:58 11:52:02 11:52:04

A. Yes, sir. 11:52:04

Q. -- and maybe closer management, but the same general recommendations and treatment plan would have been in existence? 11:52:06 11:52:10 11:52:10

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes. 11:52:12

Q. And there is not something new and different you can say to somebody who has had a heart attack in terms of secondary prevention? 11:52:16 11:52:18 11:52:18

A. I think that the -- what we can tell them is that there is hope, that they do not necessarily -- if they address the causative agents, that they do not 11:52:24 11:52:30 11:52:34



necessarily have to have a progressive disease. 11:52:36

Q. Okay. Do you tell them that with proper control of diet, that they can have a regressive disease? 11:52:42 11:52:46

A. I think that looking at, again, the literature regarding this, regression was a goal 10 to 15 years ago. 11:52:56 11:53:02 11:53:02

Stabilization, for most people, is a realistic goal because we know that the pathophysiology of the progression of disease oftentimes is plaque rupture with -- and that most heart attacks are caused by 30 to 50 percent blockage that then suddenly ruptures. 11:53:10 11:53:12 11:53:14 11:53:22 11:53:24 11:53:26

That's why when you smoke in a thrombogenic state, stopping smoking and decreasing the ability of the platelets to aggregate when you stop smoking is -- results in an immediate decrease in cardiac risk. 11:53:30 11:53:38 11:53:40 11:53:44 11:53:46

Q. Platelet factor is also a factor if it's a not-controlled diabetic? 11:53:56 11:53:56

A. Is that a question? 11:53:58

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Yes. Is that true? 11:53:58
A. In patients who have uncontrolled diabetes, platelet and uremia, a number of states can cause platelet dysfunction. 11:54:06 11:54:10 11:54:10
Q. Okay. So let's, then, talk about the secondary patient and what you can offer them. 11:54:14 11:54:18
And my question was about regression, and you said that was popular about 15 years ago, 10 or 15. 11:54:20 11:54:24 11:54:24
A. As a -- you know, as the goal of angiographic trials and all. 11:54:32 11:54:32
Q. Right. And you did, I think, on your CV, indicate that you had an interest in regression, true? 11:54:36 11:54:40
A. Yes, sir. 11:54:42
Q. That is a current interest? 11:54:42
A. Yes. It's a term, but most coronary disease, I think if you have a 50 percent blockage in your left anterior descending coronary artery and are asymptomatic from that, at the time -- at this time, as long as that remains stabilized for most people, you will be fine. 11:54:52 11:54:56 11:55:00 11:55:04 11:55:10 11:55:10
Q. So your interest in regression, do you think that is a current viable theory or approach, or feasible? For example, are you acquainted with a Dr. Dean Ornish? 11:55:18 11:55:24 11:55:28 11:55:28
A. I am. 11:55:30
Q. Read his book or books? 11:55:30
A. Yes, sir. 11:55:32

http://legacy.library.ucsf.edu/id/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

24 Q. He talks about regression, has some data in the 11:55:34
25 books, right? 11:55:34

1 A. Uh-huh. 11:55:36
2 Q. Are you -- are your views consistent with his in 11:55:40
3 respect to the proper diet, tightly-controlled diet, 11:55:46
4 all other things being equal, regression can occur? 11:55:48
5 A. I think that regression is a relative term, and I 11:55:56
6 will explain what I mean by that. 11:55:58
7 A lot of the research in the past ten 11:56:00
8 years has begun to focus on endothelial health, and 11:56:08
9 we also know -- 11:56:08
10 Q. Want to spell that? 11:56:10
11 A. E-N-D-O-T-H-E-L-I-A-L. 11:56:14
12 In an artery that has a 50 percent 11:56:18
13 blockage, if the artery is in spasm, in an unhealthy 11:56:24
14 state, and we know that that is also one of the 11:56:26
15 detriments of cigarette smoke, it causes the artery 11:56:30
16 to vasospasm, that 50 percent -- 11:56:32
17 Q. What I want to talk about, Doctor -- I don't mean to 11:56:36
18 interrupt you -- is I want to talk about 11:56:38
19 regression. 11:56:38
20 A. I am explaining that. Okay? And I will explain to 11:56:40
21 you why -- 11:56:40
22 Q. And my question was -- and we can go back -- was do 11:56:44
23 you believe that Dr. Ornish's approach has some 11:56:48
24 validity? 11:56:50
25 A. Yes, sir. 11:56:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. And do you utilize those techniques in your practice, diet recommendations? 11:56:52 11:56:54

A. Yes, sir. 11:56:56

Q. Okay. And when you are talking with patients that are in the secondary -- that need secondary prevention, do you talk with them about diet? 11:57:00 11:57:02 11:57:04

A. Yes, sir. 11:57:06

Q. Do you have suggested diets? 11:57:06

A. Yes, sir. 11:57:06

Q. Okay. And in respect to patients needing primary prevention, do you talk with them about proper diet? 11:57:12 11:57:14

A. Yes, sir. 11:57:16

Q. And you talk with them about the context of proper diet and exercise? 11:57:22 11:57:22

A. Yes, sir. 11:57:24

Q. Do you give them information about the benefits of exercise in terms of reducing your risk of having cardiovascular disease? 11:57:26 11:57:32 11:57:32

A. Yes, sir. 11:57:34

Q. I saw some quotations in newspapers about a discussion of a particular kind of body shape and exercise. 11:57:38 11:57:42 11:57:42

A. Uh-huh. Yes, sir. 11:57:44

Q. Do you remember telling the press or giving the press some information about studies or ideas in 11:57:46 11:57:48



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

respect to that? 11:57:50

A. Yes, sir. 11:57:50

Q. Okay. And what was the information that you provided them? 11:57:52

A. That in young patients, that a predominance of the apple shape is a marker for the development of early coronary disease. 11:57:58

Q. And have you done any work yourself in respect to that or have you observed that clinically? 11:58:06

A. These are from clinical observations in our practice. 11:58:14

Q. Okay. Did your group publish some data in respect to those findings? 11:58:20

A. Yes, we published an abstract at the American College of Cardiology, which I think that you folks have. 11:58:24

Q. Yeah, I think we sent that up to you. 11:58:34

And was that a presentation that you made? 11:58:38

A. It was a -- presented as a poster for discussion. One of our nurses I had present that. 11:58:42

Q. Was it data that you were involved in accumulating? 11:58:48

A. Yes, sir. 11:58:50

Q. Is that when they talk about a waist-hip ratio? 11:59:02

A. Yes, sir. 11:59:02

Q. Do you believe that that's a valid concept in 11:59:06





respect to risk factors, this particular shape and 11:59:12

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

the waist-hip ratio? 11:59:18

A. As far as -- yes, sir. 11:59:20

Q. And would that be a causative risk factor? 11:59:28

A. I think it's associated with a number of things that go along with that. 11:59:34 11:59:36

Q. Like, for example, high total cholesterol? 11:59:40

A. High triglycerides, low HDL cholesterol. 11:59:56

Q. Do you agree that sedentary lifestyle is a significant risk factor? 12:00:04 12:00:06

A. In this group, subgroup of patients, it appears to be associated with the body shape. 12:00:10 12:00:14

Q. You were engaged, yourself, in doing this research. Was this a project or just data that you accumulated? 12:00:18 12:00:20 12:00:22

A. Just data that we have accumulated on these patients. 12:00:24 12:00:24

Q. This was a -- this was a research focus that people decided that they wanted to accumulate data on patients that met this particular profile? 12:00:28 12:00:30 12:00:32

A. No, we -- of all patients that were 55 or under who came in to the Heart Institute, so that we then assembled the data and looked and said what did we find. 12:00:36 12:00:40 12:00:46 12:00:46

Q. And what you found, then, was reported at the 12:00:52



American College of Cardiology? 12:00:54

A. Yes, sir. 12:00:54

Q. Has that been an ongoing research project? 12:00:58

A. Yes, sir. 12:00:58

http://legacy.library.ucsf.edu/tid/nsp35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. Have you found anything different than what you reported back in 1992? 12:01:02

A. No, sir. 12:01:04

Q. Did you also in that study evaluate elevated serum cholesterol levels? 12:01:10

A. Yes, sir, as part of the lipid panel. 12:01:16

Q. Okay. And, also, obesity as defined by 30 percent or more overweight? 12:01:24

A. Yes, sir. 12:01:26

Q. Are those two related, the obesity and the elevated cholesterol level? 12:01:28

A. Not necessarily. 12:01:32

Q. Did you find that stress was a factor? 12:01:38

A. We have not -- in the scales that we have used, we have not been able to identify a demonstrable presenting stress scale that would lead patients in to this presentation. 12:01:44

Q. Does that mean you can't develop the criteria to define stress? 12:02:02

A. Well, the scale that we used, Holmes & Ray scale, that is a predictor oftentimes of presentations for disease, we find that scores on that were not uniformly high to a statistical degree. 12:02:10



Q. So that did not meet the standard for a heart disease risk factor under that research; is that right? 12:02:20

A. In this particular patient population, the scale 12:02:36

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

that we used, and it very well, in looking back, may have been the scale rather than the -- what we said, so in summation of that, the tools we used for that particular may not have been the best. 12:02:42 12:02:46 12:02:52 12:02:56

Q. Are you using a different tool now? 12:03:00

A. We have looked at a number of tools. We stopped using the tool that we were using and we are looking at a number of ones that may do a better job. 12:03:06 12:03:08 12:03:10

Q. Okay. Did you find in that research that high blood pressure was a causative factor? 12:03:14 12:03:16

A. High blood pressure was related, but not -- we were looking at gender differences in the abstract that you were looking at. Between the sexes it was not statistical significant, that one sex had more hypertension than the other. 12:03:26 12:03:30 12:03:34 12:03:42 12:03:42

Q. But what you found was sedentary lifestyle and truncal obesity were by far the most prevalent risk factor; is that right? 12:03:48 12:03:52 12:03:54

A. At the time of presentation. 12:03:54



Q. Tell me how, with a patient that has some kind of episode and has had secondary prevention, what kind of medication regimen do you suggest or recommend as the treating physician? 12:04:08 12:04:14 12:04:18 12:04:18

A. It partly depends on the patient, of course. Aspirin, as an anti-platelet drug to reverse the ability to make blood clots within the bloodstream, is a cornerstone. 12:04:28 12:04:32 12:04:36 12:04:38

Are you speaking of secondary prevention? 12:04:40

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. Yes. 12:04:42
A. Patients who have had a completed transmural myocardial infarction, we most oftentimes, if the patient will tolerate them, recommend a class of drugs called a beta blocker. 12:04:44 12:04:52 12:04:56 12:04:58
Patients who have had particular kinds of infarctions called anterior infarctions, which usually involve a large amount of myocardium, we then will oftentimes recommend an ACE inhibitor -- 12:05:02 12:05:06 12:05:12 12:05:16
Q. That's A-C-E? 12:05:18
A. A-C-E. 12:05:18
Q. In caps? 12:05:20
A. -- inhibitor to decrease the strain on the heart, and then, as far as regimens to look at people who have high cholesterol, we want to bring the cholesterol down first with diet, weight loss, 12:05:28 12:05:38 12:05:42 12:05:46



exercise, if possible. 12:05:50
This is a group where the risks of ongoing high cholesterol become higher; therefore, we will oftentimes use pharmacologic therapy to drive the LDL cholesterol less than 100 milligrams per deciliter. 12:05:54 12:05:56 12:06:00 12:06:04 12:06:06
We will sometimes in this population, depending on the coronary artery anatomy, if that is known, recommend nicotine withdrawal therapy, if they are heavier than one-pack-per-day smokers, and if the coronary artery is anatomy we believe is not 12:06:08 12:06:12 12:06:16 12:06:20 12:06:24

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

at sufficient high risk. There have been reports of 12:06:26
problems with nicotine replacement therapy. And 12:06:32
then as we -- then those would be kind of 12:06:36
cornerstones of the usual things. 12:06:42
Within individual patients, other 12:06:44
medications, as far as controlling blood pressure, 12:06:48
controlling diabetes to an optimum degree, insulin, 12:06:54
oral hypoglycemic action agents, whatever, to 12:06:58
control those -- to normalize blood sugar as much as 12:07:04
possible, those types of things for individual 12:07:06
patients would come into play. 12:07:08
Q. In respect to the articles that you cited on your 12:07:26
report, I think you cited an article about aspirin. 12:07:28
Have you done some particular work with benefits of 12:07:32



that in people that have had some kind of myocardial 12:07:36
infarction? 12:07:36
A. I have not been personally involved in the primary 12:07:40
or secondary aspirin prevention trials. 12:07:44
Q. Okay. What is the reason that, in a patient that 12:08:02
has secondary prevention with aggressive use of 12:08:04
medication, you would attempt to drive down the 12:08:08
cholesterol levels? 12:08:10
MR. EISBERG: I am sorry, would you repeat 12:08:12
the question, please. 12:08:14
MR. SHEPPARD: Sure. Want to read that 12:08:14
back? 12:08:14
(The record was read by the court
reporter.)

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

BY MR. SHEPPARD:

Q. Should say needs secondary prevention. 12:08:30

A. Again, the reason that we would hold down the cholesterol levels in people like this is to try and prevent, you know, a second event from the plaque that is in the coronary artery disease -- coronary artery progressing. 12:08:42 12:08:48 12:08:56 12:09:02 12:09:04

Q. If we have -- or you are presented with a patient who has not had a myocardial infarction or other cardiac event but you feel, as a physician, that needs some primary prevention, what criteria do you 12:09:10 12:09:16 12:09:18 12:09:22



use in respect to whether or not that primary prevention should include the use of cholesterol-lowering medications? 12:09:24 12:09:28 12:09:30

A. Looking -- in our -- our goal in patients, of course, is to have them not present with the first infarction, since oftentimes that is a fatal infarct; the first presentation is -- of the disease can be a fatal presentation. 12:09:38 12:09:42 12:09:50 12:09:54 12:09:56

So -- but we also do not take lightly the initiation of life-long therapies in populations, so we try and minimize the number of risk factors, and depending on the concomitant risk factors will determine whether a patient is committed to a life-long of cholesterol-lowering medication. 12:10:00 12:10:10 12:10:16 12:10:18 12:10:22 12:10:24

So if a patient is overweight, we try and get them to lose weight and take that off; if a 12:10:28 12:10:30

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

patient is not exercising, we try and get them to exercise; if a patient is smoking, we try and get them to quit smoking. We can't change their family history. If a patient is diabetic, we try and go for optimal diabetes control. 12:10:34 12:10:38 12:10:40 12:10:44 12:10:46

Depending on the success of the modifiable risk factors, coupled with the family history as far as genetics, that if people are dying prematurely of coronary artery disease, then a serious decision has 12:10:50 12:10:56 12:12:06 12:12:08



to be made whether to commit that person to a life-long course of pharmacologic therapy. 12:12:12 12:12:16

Q. So I take it that you start off with the proposition that each patient is an individual? 12:12:26 12:12:28

A. In clinical practice, we start with each patient, seeing each patient individually. 12:12:34 12:12:36

Q. And then if I understood, and you had to do some research there to track with your answer there with what had been said, but that you have some recommendations that if they have what you regard as risk factors that are subject to modification, as part of their behavior, you offer those as recommendations before you -- before you instigate, as you say, a life-long cholesterol-lowering plan, i.e., diet, exercise, and so forth? 12:12:40 12:12:42 12:12:44 12:12:48 12:12:54 12:13:00 12:13:06 12:13:10 12:13:14

A. We think that regardless of whether people are at high risk for coronary disease, a low-fat diet and exercise are in their benefit for their general health. 12:13:22 12:13:30 12:13:32 12:13:34

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

So we would recommend a reasonable diet that would be an American Heart Association Step 1 diet to anybody, even if they did not have significant coronary artery disease, because we think it is a healthy diet. 12:13:38 12:13:42 12:13:46 12:13:52 12:13:54

Q. Okay. So if I understand, you would recommend this particular American Heart Association diet to someone who did not have additional risk factors? 12:14:02 12:14:04 12:14:08



A. I would recommend it to the American population. 12:14:12

Q. And if persons followed that, do you think there would be an overall reduction in the number of people who face cardiovascular disease? 12:14:18 12:14:20 12:14:22

MR. EISBERG: Objection, lack of foundation. 12:14:26 12:14:26

THE WITNESS: Well, I just think that that calls for, again, some statistical -- I told you already I am not a statistician and, also, I will tell you, I am not an epidemiologist, for those types of conclusions. 12:14:28 12:14:32 12:14:38 12:14:38 12:14:40

BY MR. SHEPPARD:

Q. Do you know of any study that has looked at that? 12:14:42

A. There have been, you know, studies that looked at diet's impact on the incidence of coronary artery disease and, yes, you know, diet can have an impact on coronary artery disease. 12:14:44 12:14:52 12:14:54 12:14:58

Q. A positive impact in terms of reducing the risk of coronary artery disease, right? 12:15:00 12:15:04

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

22 A. Yes, sir. 12:15:04
23 Q. And have you done some studies or accumulated data 12:15:08
24 there within your organization? 12:15:08
25 A. Particularly the type of studies that you are 12:15:14



1 referring to, we have not done those. 12:15:16
2 Q. And what has been your success in talking with 12:15:20
3 patients who you have talked with about them 12:15:22
4 following the -- this particular version of the 12:15:24
5 American Heart Association diet? 12:15:26
6 A. It -- again, patients are varied in their approach 12:15:36
7 to -- whether it's adherence to a heart healthy diet 12:15:42
8 or stop smoking programs, so in my clinical practice 12:15:46
9 we see many patients who have had a cardiac event 12:15:52
10 that has been life-threatening. 12:15:54
11 So our incidence of -- or our success in 12:15:58
12 changing people's diets, our success in getting 12:16:02
13 people to quit smoking, is better because people 12:16:06
14 have been at the edge of the cliff, if you would, as 12:16:12
15 far as dying. 12:16:12
16 Q. So most of the patients that you actually see are 12:16:14
17 not preventive cardiology patients? 12:16:18
18 A. Most of the patients I see in the course of a day 12:16:20
19 are -- again, my preventive cardiology practice is 12:16:24
20 probably 15 percent of my total time. 12:16:28
21 Our general cardiology practice, and most 12:16:30
22 of our practice, 75 to 85 percent of our practice is 12:16:36
23 dealing with diagnosis and treating atherosclerosis, 12:16:40
24 so in that group of patients, you know, who had 12:16:44

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

suffered terribly from atherosclerosis, they are -- 12:16:52

probably have a more open ear to listening to us 12:16:58
than a patient who is -- 12:17:02

Q. Symptomatic? 12:17:02

A. -- asymptomatic. 12:17:06

Q. So in respect to your primary cardiology prevention 12:17:10
efforts, that may mostly be comprised of your 12:17:14
activities in terms of these presentations and talks 12:17:16
and lectures and responding to public inquiries as 12:17:20
opposed to actually working day to day with 12:17:22
patients? 12:17:24

A. We see patients who are referred for primary 12:17:28
prevention who have multiple risk factors, are at 12:17:32
high risk. 12:17:34

It is our personal philosophy at the 12:17:36
Minneapolis Heart Institute that primary prevention 12:17:42
be performed in primary care clinics, unless the 12:17:48
patient becomes untreatable in that setting, and 12:17:54
then we operate a referral-based preventive 12:17:58
cardiology clinic, so we do not compete with our 12:18:02
primary care providers, we work with them. 12:18:04

Q. And then accept referrals from them if, in their 12:18:08
judgment, they have a patient who would benefit from 12:18:12
direct primary care consultation with a 12:18:14
cardiologist? 12:18:14

A. Who is at high risk and would need more expert care. 12:18:18

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Okay. You had a page there, do you need -- 12:18:22
A. I am okay. 12:18:22
Q. Let's talk, then -- continue to talk about these patients and what criteria you would use to make a decision to put a primary care prevention patient on cholesterol-lowering drugs. 12:18:24 12:18:30 12:18:36 12:18:38
Because this is something the physician can do. It's not a behavioral modification issue on behalf of the patient except for the compliant -- extent of compliance, I suppose? 12:18:42 12:18:46 12:18:50 12:18:52
A. Well, the Adult Treatment Guidelines recommend that in patients with greater than two risk factors with an LDL cholesterol greater than 160 is a candidate for pharmacologic therapy. 12:18:54 12:18:58 12:19:04 12:19:06
Q. Is that what you found? 12:19:06
A. Yes. And so there is a component of behavior modification to that in that if I can get that patient to quit smoking, he may or she may go from two to one risk factor and then potentially avoid pharmacologic therapy. 12:19:10 12:19:14 12:19:18 12:19:22 12:19:22
Q. Right, or if you can get them to exercise or if you can get them to eat right? 12:19:26 12:19:28
A. (Witness indicating in the affirmative.) 12:19:28
Q. How much -- go ahead. 12:19:30
A. No, go ahead. That's fine. 12:19:32



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. How much -- let's put it -- in respect to diet and eating, you talked about the importance of that. How much reduction, in your experience, can a person who follows this particular version of the American Heart Association diet hope to achieve in terms of -- 12:19:34 12:19:38 12:19:44 12:19:48 12:19:50 12:19:50

A. 5 to 7 percent. 12:19:52

Q. 5 to 7 percent. 12:19:54

And is that an experience that you have gleaned from articles or is that based upon your own personal observations in your clinical practice? 12:19:56 12:19:58 12:20:00

A. I would say that the literature would support that and, also, personally, in our experience of someone who is just initiating a type 1 diet, step 1 diet, that -- so both, in a long-winded fashion. 12:20:04 12:20:10 12:20:14 12:20:20

Q. So in respect to patients that present with -- say for very high cholesterol levels, that even if they were -- you know, were reduced to 10 percent, they would be in excess of the guidelines. 12:20:22 12:20:26 12:20:30 12:20:32

Do you then recommend the cholesterol-lowering medication? 12:20:36 12:20:38

A. If there are one or no risk factors, the guidelines then recommend an LDL cholesterol level of 190, so with that, again, that's why we press very hard in the primary prevention arena on behavior 12:20:42 12:20:46 12:20:52 12:20:56



modification modifying other risk factors, so that if we can keep people off a lifetime of 12:21:00 12:21:02

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

pharmacologic therapy, we would prefer to do that, and so that's why we push hard on the behavioral side, if possible. 12:21:04 12:21:10 12:21:10

Q. But I take it at some point in time, because of the levels of cholesterols, in spite of the behavior counseling, and maybe good results from that, you still have to put primary prevention patients on those medications? 12:21:16 12:21:20 12:21:22 12:21:26 12:21:26

A. There are high-risk primary prevention patients that are then candidates for pharmacologic therapy. 12:21:30 12:21:32

Q. In respect to these guidelines and these levels and the one or two risk factors, whose guidelines are these that you are following? 12:21:36 12:21:40 12:21:42

A. These are the Adult Treatment Guidelines of the National Cholesterol Education Committee. 12:21:44 12:21:46

Q. Have you ever served on that? 12:21:48

A. No, sir. 12:21:48

Q. Anybody from your particular organization or group? 12:21:52

A. No, sir. 12:21:52

Q. You said you were not a statistician. Are you an expert in medical economics in respect to health care? 12:21:58 12:22:00

A. I am not. 12:22:02



Q. You don't have a particular degree or major in medical economics? 12:22:04 12:22:06

A. Absolutely not. 12:22:08

Q. You were an English major at -- in your undergraduate level? 12:22:10 12:22:12

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes, sir. 12:22:34

(A discussion was held off the record.) 12:22:48

BY MR. SHEPPARD:

Q. Have there also, in recent years, been improved drugs and medications for the control of hypertension? 12:22:50 12:22:52 12:22:52

A. There have been more drugs for the control of hypertension. I think that there are many drugs that treat hypertension, and it would depend partly on your definition of "recent" and partly on your definition of what good control of hypertension is. 12:23:00 12:23:08 12:23:12 12:23:16 12:23:18

Q. All right. Well, on "recent" I will define and say the last three years. 12:23:22 12:23:24

A. There has been one new agent in the last three years for the treatment of hypertension. 12:23:28 12:23:30

Q. And what is that? 12:23:32

A. Well, it's now a class of agents called the ACE blocking agents. The first agent of that class on the market is called Losartan, and there is now a second agent. 12:23:38 12:23:44 12:23:48



Q. Have you done any research into risk factors of hypertension? 12:24:02 12:24:04

A. Could you define that for me? 12:24:08

Q. Okay. Have you done any research into the nature or associated factors that may give rise to hypertension? 12:24:12 12:24:20 12:24:22

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. I guess that when you look at -- you are going to have to go one better, as far as -- I have not done the basic -- what you -- what you are asking me is have I done -- got into the pathophysiology of hypertension, researching the pathophysiology of hypertension, which I have not. 12:24:26 12:24:32 12:24:36 12:24:44 12:24:48 12:24:48

Q. Okay. Have you done research in respect to atherosclerotic changes at a level other than as a practicing clinician? 12:24:52 12:25:02 12:25:02

A. No, sir. 12:25:02

Q. When you -- going back to the medical negligence trial at which you were involved, I think, as a treating physician, I asked about a standard of care question and you answered that, but were there any issues in that case that you testified about that related to causation? 12:25:18 12:25:22 12:25:24 12:25:28 12:25:30 12:25:32

A. No, sir. 12:25:32

Q. I take it from what you told us you try to keep up to date on heart research with this cardiovascular disease? 12:25:42 12:25:48 12:25:48



A. Yes, sir. 12:25:48

Q. And there are some articles, and we may have sent you some of these that -- where investigation is being done of some additional conditions which people think might be risk factors or causative in relationship to cardiovascular disease. 12:25:52 12:25:56 12:26:00 12:26:06 12:26:10

Are there any of those that stand out in your mind that you are following? 12:26:12 12:26:14

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 11 | A. | I have not seen those articles. | 12:26:16 |
| 12 | Q. | Okay. Have you noticed that people that present to | 12:26:34 |
| 13 | | you for either -- for primary care have a number of | 12:26:36 |
| 14 | | different risk factors as opposed to simply having | 12:26:40 |
| 15 | | one? | 12:26:40 |
| 16 | A. | Patients do not present to us for primary care. We | 12:26:48 |
| 17 | | have a consultive cardiology practice, therefore | 12:26:52 |
| 18 | | it's a referral practice, so people go to their | 12:26:54 |
| 19 | | primary care physicians for primary care. | 12:26:58 |
| 20 | | The people that we see in -- for | 12:27:02 |
| 21 | | primary -- prevention are a referral population. | 12:27:08 |
| 22 | Q. | And as you say, they are the ones that might have | 12:27:12 |
| 23 | | already been diagnosed or at least assessed as | 12:27:16 |
| 24 | | having a high risk for cardiovascular disease? | 12:27:20 |
| 25 | A. | Yes, sir. | 12:27:20 |



| | | | |
|---|---|---|---|
| 1 | Q. | So you see a -- obviously, a different population | 12:27:22 |
| 2 | | than would generally be seen by the typical | 12:27:26 |
| 3 | | internist or family care provider? | 12:27:28 |
| 4 | A. | Yes, sir. | 12:27:28 |
| 5 | Q. | Excuse me. | 12:27:32 |
| 6 | A. | Can we take a two-minute break? | 12:27:36 |
| 7 | Q. | Sure. | 12:27:36 |
| 8 | | (A recess was taken.) | 12:36:52 |
| 9 | BY MR. SHEPPARD: | | |
| 10 | Q. | We have taken a little break. We talked earlier | 12:36:52 |
| 11 | | about some risk factors for cardiovascular disease, | 12:36:58 |
| 12 | | and you have mentioned these, identified some of | 12:37:02 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

them, and we have talked about them, both in the context of primary prevention and secondary prevention. 12:37:06 12:37:08 12:37:08

And I think you know which ones you have talked about to date, the hypertension, the diabetes, the smoking, obesity, lack of exercise, high cholesterol. 12:37:10 12:37:16 12:37:20 12:37:28

Any others that you have mentioned that I didn't name? 12:37:30 12:37:30

A. I don't know. 12:37:32

Q. Okay. Well, let me ask you, then, against that context, are there any other risk factors that you have observed -- we talked about this truncated body 12:37:36 12:37:40 12:37:42



shape. 12:37:44

Have you -- in your personal experience, other than the ones that you have talked about here and I just briefly recited, have you seen a pattern of any other kind of risk factors that have brought patients to you on a referral from a primary care physician? 12:37:46 12:37:48 12:37:50 12:37:54 12:37:58 12:37:58

A. No. 12:38:04

Q. Now, have you seen patients that have come to you because they have some symptoms from cardiovascular disease that when you take a history and do a physical, they don't appear to have any particular risk factors? 12:38:08 12:38:12 12:38:16 12:38:18 12:38:20

A. Yes. I mean, of the ones that we spoke about. 12:38:26

Q. Right. Right. Are there other risk factors? 12:38:30

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. There are. 12:38:30
Q. Are there -- and you think that there are risk factors that are probably undiscovered to date, but based upon further research will, at some point in time, be identified? 12:38:32 12:38:36 12:38:40 12:38:40
A. There are rare cases. I am sending a woman to the operating room tomorrow who has radiation-induced coronary artery disease who had Hodgkin's disease 26 years ago who had radiation in Russia and now, from the injury of radiation to her coronary arteries, 12:38:46 12:38:50 12:38:54 12:39:02 12:39:06



has developed a very atypical type of coronary artery disease. That is a rare but known entity that can cause coronary artery disease. 12:39:12 12:39:18 12:39:22
For that patient that is the causative agent for coronary artery disease. She has none of the other causative agents that we spoke about, so there are other causative agents. 12:39:24 12:39:26 12:39:30 12:39:32
Q. And have you treated patients who, based upon your history and physical, have no other risk factors and you go ahead and treat them, regardless of whether or not you know what the risk factors are? 12:39:38 12:39:44 12:39:48 12:39:52
MR. EISBERG: Objection, vague. 12:39:54
THE WITNESS: Yeah, can you define that? 12:39:56
BY MR. SHEPPARD:
Q. That was not -- let me just withdraw that question. 12:39:58
Have you had situations where a patient has come in and you have done a history and a 12:40:02 12:40:06

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

physical and they have symptomatic disease but you are absolutely unable to detect any risk factor in respect to their condition? 12:40:08 12:40:12 12:40:14

A. Of the 25,000 plus patient visits that we have a year, a couple of times a year we will come on to a patient that does not appear to have any of the, quote unquote, "standard causative agents" that we have discussed earlier. 12:40:24 12:40:30 12:40:36 12:40:40 12:40:42



And -- but usually it is not a mystery why patients are -- have developed their coronary artery disease. 12:40:48 12:40:52

Q. Let's talk about this report which was earlier marked as an exhibit, your report dated June of this year. 12:40:56 12:41:00 12:41:00

And I covered at least some of this in our other questions, and I don't want to unduly go back through things that you have already indicated, nor do I -- as you might imagine for your time and for the record, I don't want to necessarily ask you to simply read what's in this report because that would defeat the whole purpose of the report. Okay? 12:41:10 12:41:12 12:41:16 12:41:18 12:41:22 12:41:26 12:41:30

A. Yes. 12:41:30

Q. So you say in the -- and I need to ask you another question. Was this prepared -- I asked you earlier whether you looked at these articles, but was this prepared based upon some of the material that you use in the presentations to physicians or otherwise as part of your ongoing prevention efforts? 12:41:34 12:41:38 12:41:40 12:41:42 12:41:46 12:41:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 21 | A. | I think this is the synthesis of medical school, | 12:41:58 |
| 22 | | residency, fellowship, eight and a half years of | 12:42:02 |
| 23 | | practice. I don't think I can pull out one | 12:42:04 |
| 24 | | particular place or another that most of this report | 12:42:08 |
| 25 | | or portions of this report came from. | 12:42:12 |



| | | | |
|---|---|---|---|
| 1 | Q. | But you did prepare it for the function of a report | 12:42:22 |
| 2 | | to cover what testimony you are going to offer at | 12:42:24 |
| 3 | | trial to the jury? | 12:42:24 |
| 4 | A. | Yes. | 12:42:26 |
| 5 | Q. | It was not prepared for a presentation to a | 12:42:28 |
| 6 | | physician group or something like that? | 12:42:30 |
| 7 | A. | No. | 12:42:30 |
| 8 | Q. | Now, you indicate there in your opening paragraph, | 12:42:50 |
| 9 | | the middle, "My testimony in this document will | 12:42:54 |
| 10 | | focus on the clinical course after the onset of | 12:42:56 |
| 11 | | symptomatic atherosclerosis, focusing on coronary | 12:43:00 |
| 12 | | artery disease, but also discussing stroke and | 12:43:04 |
| 13 | | peripheral vascular disease," right? | 12:43:06 |
| 14 | A. | Yes, sir. | 12:43:06 |
| 15 | Q. | And that is the -- that underlines what your intent | 12:43:12 |
| 16 | | is in terms of the issues that you are going to | 12:43:16 |
| 17 | | discuss with this jury at trial? | 12:43:18 |
| 18 | A. | Yes, sir, as well as the statement after and the | 12:43:30 |
| 19 | | concluding statements -- | 12:43:32 |
| 20 | Q. | About the medical economics? | 12:43:32 |
| 21 | A. | About the charges of the plaintiffs in our | 12:43:44 |
| 22 | | experience and in our experience with the physicians | 12:43:48 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

of a wide primary care network that we have around the state of Minnesota. 12:43:52 12:43:54

Q. Let's talk a little bit about that since you bring 12:43:56

that up, and that is outlined there on the concluding page, page 8 of your report that's been marked as an exhibit, 1751? 2? 12:43:58 12:44:02 12:44:10

A. 2. 12:44:12

Q. 1752. The two paragraphs you are talking about are the last two paragraphs of your report, right? 12:44:14 12:44:18

A. Yes, sir. 12:44:20

Q. Okay. Now, did you, prior to preparing this, consult with people there in your organization concerning amounts billed for certain disease categories? 12:44:26 12:44:28 12:44:32 12:44:32

A. Could I look at that question again, please. 12:44:36

(Screen read.)

THE WITNESS: Yeah, our organization, we have meetings from time to time with our billing people to let us know the reasonable and customary charges for certain procedures. Also, the cost of our care for patients. 12:44:48 12:44:58 12:45:06 12:45:10 12:45:12

BY MR. SHEPPARD:

Q. So I think my question was did you consult with these people in terms of preparing this document? 12:45:20 12:45:22

A. No, sir. 12:45:22

Q. Did you have in front of you any data that consisted, in all or part, of a compilation of whatever charges your group made for its medical 12:45:28 12:45:32 12:45:34

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 1 | | services to patients? | 12:45:36 |
| 2 | A. | No, sir. | 12:45:38 |
| 3 | Q. | Did you look at any document that might purport to | 12:45:44 |
| 4 | | have a standardized list of customary and reasonable | 12:45:48 |
| 5 | | charges for certain procedures in the state of | 12:45:52 |
| 6 | | Minnesota or elsewhere? | 12:45:52 |
| 7 | A. | We review those, as I stated earlier, with our | 12:46:00 |
| 8 | | business office intermittently. | 12:46:04 |
| 9 | Q. | My question was -- if I didn't make it clear, was in | 12:46:08 |
| 10 | | conjunction with this report, did you look at any | 12:46:12 |
| 11 | | recital of any customary and reasonable charges for | 12:46:16 |
| 12 | | physician care for certain illnesses or procedures | 12:46:20 |
| 13 | | in the state of Minnesota or elsewhere? | 12:46:22 |
| 14 | A. | Well, I guess it's -- for the direct preparation of | 12:46:32 |
| 15 | | this, the answer would be strictly no, but as I said | 12:46:36 |
| 16 | | previously, we have kind of -- especially in this | 12:46:42 |
| 17 | | medical environment, are aware of the costs of our | 12:46:48 |
| 18 | | treatments. | 12:46:48 |
| 19 | Q. | So when was the last time you had an intermittent | 12:47:00 |
| 20 | | meeting with your business people? | 12:47:02 |
| 21 | A. | We had a group combination documentation and billing | 12:47:14 |
| 22 | | meeting within the past three months. | 12:47:16 |
| 23 | Q. | Do you charge different payers different amounts of | 12:47:20 |
| 24 | | money for the same procedures? | 12:47:22 |
| 25 | A. | No, sir. | 12:47:22 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. So what you charge or bill a medical insurer is the same -- such as Blue Cross and Blue Shield is the same as you would charge if you were billing another third-party payer? 12:47:28 12:47:32 12:47:34 12:47:36

A. Yes. 12:47:38

Q. Have you negotiated -- or your group negotiated any arrangements with HMOs or PPOs in respect to rendering patient care to their patient populations? 12:47:44 12:47:52 12:47:54

A. We do have a very small portion of our business that is what we call package pricing for particular procedures that has been negotiated so that there can be some predictability of the procedure pricing. 12:48:00 12:48:06 12:48:12 12:48:14

Q. I think you are going to have to explain that a little bit more. How does this achieve predictability? 12:48:24 12:48:26 12:48:28

A. Say three-year -- and I was not involved in the exact specifics of this, but a payer will then know if the patient comes to the Minneapolis Heart Institute for a bypass it is going to cost them this many dollars, regardless of whether the patient stays three days or ten days, and so there is what we call a package price for that procedure. 12:48:34 12:48:40 12:48:42 12:48:48 12:48:50 12:48:54 12:48:58

Q. And that's offered to HMOs and PPOs? 12:49:02

A. It has been negotiated with a -- I think -- I am unaware of the payers, but two -- I think two 12:49:08 12:49:10



separate payers in the state of Minnesota. 12:49:14

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Is one of those payers Blue Cross and Blue Shield of Minnesota? 12:49:16

A. I am not sure. 12:49:18

Q. Is it possible that they are billed on this package price basis? 12:49:24

A. The fact that they are a payer from the state of Minnesota, it is possible. 12:49:28

Q. So you have in your memory bank now what the package prices are for certain procedures? 12:49:36

A. I do not. 12:49:38

Q. And you have not consulted without -- in preparation for this report? 12:49:42

A. No, sir. 12:49:44

Q. Would the packaged price, say, for a bypass surgery doctor's care be different than for an entity that did not require a package price? In other words, just pay by the day or the number of visits and so forth? 12:49:46

A. The reason for doing package pricing is from a payer's standpoint and from a provider's standpoint, that there is some predictability in what the costs will be. 12:50:06

It is that that I think most people look for in doing those type of arrangements. 12:50:26



Q. Okay. But you don't have those figures here today? 12:50:34

A. I do not. 12:50:34

Q. Do you know whether that package price would be the 12:50:40

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.tobaccodocuments.ucsf.edu/docs/yhxd0001

price negotiated with the state of Minnesota? 12:50:42

A. I do not. 12:50:44

Q. And do you know whether the packaged price negotiated with these third-party payers that you could not identify, at least today, would be higher or lower than for this patient care rendered to persons that had another payer? 12:50:50 12:50:56 12:50:58 12:51:02 12:51:04

A. I do not. 12:51:04

Q. Are you on -- is there a committee within your organization -- you said that there were a number of cardiologists that belong to your particular organization. 12:51:20 12:51:26 12:51:28 12:51:28

Is there a particular committee within that group that deals with billings and finances and reimbursements? 12:51:30 12:51:36 12:51:38

A. The physicians are aware of that. We generally try and have -- we generally have business people do the business end of the business and the physicians try and stick to practicing medicine. 12:51:42 12:51:56 12:51:58 12:52:02

Q. Okay. So it would be the business people who would be up to date on the costs billed for these various procedures by your medical group to the state of 12:52:04 12:52:08 12:52:10



Minnesota or Blue Cross and Blue Shield? 12:52:12

A. Yes. 12:52:14

Q. Is that true? 12:52:16

A. The exact costs in -- say for this year would be -- the business people would be aware of. I have given ranges in my testimony of the approximate costs. 12:52:20 12:52:28 12:52:30

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. For example, you cite or use in the next to last paragraph of your report a range of a few thousand dollars to greater than $44,000 for outpatient costs? 12:52:44 12:52:46 12:52:50 12:52:50

A. Yes, sir. 12:52:52

Q. Do you have any way today to quantify that down to certain procedures or certain costs for certain procedures? 12:52:54 12:52:56 12:52:58

A. I do not have those with me today. 12:53:00

Q. And you did -- do you, in your practice, see Medicaid patients? 12:53:10 12:53:14

A. Yes, sir. 12:53:14

Q. What percent of the patient -- population patients that you see in, say, a given year are Medicaid patients? 12:53:20 12:53:24 12:53:24

A. I am not aware of the number. 12:53:26

Q. Who -- the business people there in your group would be aware of that, I suppose? 12:53:32 12:53:34

A. Yes. 12:53:34



Q. Could you give us, as you did in this report, a ballpark range? 12:53:38 12:53:38

A. For -- 12:53:40

Q. Medicaid patients. 12:53:42

MR. EISBERG: Ballpark range as to what, number? 12:53:44 12:53:46

MR. SHEPPARD: Number of -- percent of practice devoted to Medicaid patients. 12:53:46 12:53:50

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

MR. EISBERG: Objection, asked and answered. 12:53:52

THE WITNESS: I can't. 12:54:00

BY MR. SHEPPARD:

Q. Okay. Do you have some patients whose medical bills are paid, in all or in part, by Minnesota Blue Cross and Blue Shield? 12:54:04

A. Yes. 12:54:10

Q. Can you tell us today what percent of the patients that you see in an average year have Blue Cross and Blue Shield as the payer for all or part of their medical bills? 12:54:12

A. I cannot. 12:54:26

Q. Do you have the figures of how much each year your group bills Medicaid for the care of Medicaid patients? 12:54:30

A. I do not. 12:54:34



Q. Are you familiar with the fee structure, medical reimbursement fee structure, for that organization, the Medicaid program? 12:54:38

A. Only in the most general aspects. 12:54:46

Q. Has your group ever done any particular studies concerning socioeconomic factors as related to disease, cardiovascular disease or heart disease or peripheral vascular disease or stroke? 12:54:50

A. We have not. 12:55:06

Q. Does your practice, based upon your conversations with the business people, keep any kind of 12:55:08

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

statistics that deal with those issues? 12:55:12
A. We do not. 12:55:14
Q. Let's talk a little bit about page 7 of your report. I don't know that we talked about stroke. 12:55:48 12:55:52
I take it, as a cardiologist, you see stroke patients? 12:55:58 12:56:00
A. We do see stroke patients. 12:56:02
Q. You say in their, quote -- in your report on page 7, you say "we do." I assume you do? 12:56:06 12:56:08
A. Yes. 12:56:10
Q. Okay. And you say there on page 7 of Exhibit -- your report, which is Exhibit 1752, you state, quote, "While the mechanisms of stroke are multi-factorial, thrombosis and embolization of clot 12:56:14 12:56:18 12:56:20 12:56:26



are the major culprit in most strokes," right? 12:56:30
A. Yes. 12:56:30
Q. Would it be also true that cardiovascular disease is multi-factorial? 12:56:34 12:56:36
A. Yes, sir. 12:56:36
Q. Now, what percentage of the patients do you think you see in a year are stroke patients? 12:56:40 12:56:42
A. A small percentage. 12:56:44
Q. Okay. When you were in Colorado were you involved with stroke patients? 12:56:58 12:57:00
A. Yes. 12:57:00
Q. At a higher percentage level than you are now? 12:57:06
A. I can't -- I can't give you a good answer on that. 12:57:12

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 14 | Q. | Do you, in your present practice, go to see stroke | 12:57:16 |
| 15 | | patients in nursing homes? | 12:57:18 |
| 16 | A. | I do not. | 12:57:18 |
| 17 | Q. | Have you had any involvement in -- with patients in | 12:57:24 |
| 18 | | nursing homes? | 12:57:24 |
| 19 | A. | Historically, yes. | 12:57:28 |
| 20 | Q. | In Colorado? | 12:57:28 |
| 21 | A. | In Colorado and my training at Hennepin Medical | 12:57:34 |
| 22 | | Center. | 12:57:36 |
| 23 | Q. | And how did that come to be? | 12:57:36 |
| 24 | A. | As part of rotations, we would visit nursing homes | 12:57:42 |
| 25 | | and see nursing home patients. | 12:57:44 |



| | | | |
|---|---|---|---|
| 1 | Q. | And since you have gone into cardiology practice | 12:57:52 |
| 2 | | here with your present group you don't render any | 12:57:56 |
| 3 | | care at these different sites at nursing homes? | 12:58:00 |
| 4 | A. | Not on-site to nursing homes. Patients are usually | 12:58:04 |
| 5 | | brought to us. | 12:58:04 |
| 6 | Q. | All right. And then you talk in your report about | 12:58:08 |
| 7 | | peripheral vascular disease. | 12:58:10 |
| 8 | A. | Yes, sir. | 12:58:12 |
| 9 | Q. | Do you see patients that have that condition? | 12:58:16 |
| 10 | A. | Yes, sir. | 12:58:18 |
| 11 | Q. | Do you have an idea of what percent of the patients | 12:58:24 |
| 12 | | that you see, say, in a year have that condition? | 12:58:28 |
| 13 | A. | There are -- I can't give you an exact percentage. | 12:58:40 |
| 14 | | It's a question -- I would have to define the | 12:58:42 |
| 15 | | question as whether they are being referred for | 12:58:46 |
| 16 | | peripheral vascular disease or they have concomitant | 12:58:50 |

http://legacy.library.ucsf.edu/id/msm35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

peripheral vascular disease with their coronary artery disease. 12:59:02

Q. Okay. I take it if you break it down, then, how many patients percentage-wise in an average year do you see that have peripheral vascular disease but not cardiovascular disease that you are called upon to manage? 12:59:08 12:59:10 12:59:12 12:59:20 12:59:20

A. Probably it is a rule, and one -- most often we are asked to see peripheral vascular disease patients 12:59:30 12:59:32



because patients don't die of peripheral vascular disease, but patients who have had symptomatic peripheral vascular disease who are about to undergo procedures aren't at risk from the procedures from the angioplasty or operation that they are about to get, their biggest risk is having a heart attack around the time of the procedure. 12:59:36 12:59:38 12:59:40 12:59:46 12:59:50 12:59:52 12:59:54

So that is why a cardiologist is often asked to see those patients. And there is a high likelihood of them having coronary artery disease; it's a question of whether the coronary artery disease puts them at undue risk for whatever peripheral vascular procedure they are about to have done, so that's why we are most often asked to see those patients. 12:59:56 13:00:00 13:00:04 13:00:06 13:00:10 13:00:14 13:00:16 13:00:16

Q. So in this respect, you would be making a preoperative assessment about their ability to withstand and survive the procedure? 13:00:18 13:00:22 13:00:26

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 19 | A. | Exactly. | 13:00:26 |
| 20 | Q. | But you wouldn't be involved in long-term management | 13:00:28 |
| 21 | | of that condition? | 13:00:28 |
| 22 | A. | We are from the standpoint of risk factor | 13:00:32 |
| 23 | | interventions on our preventative side and on the | 13:00:38 |
| 24 | | risk factors that oftentimes bring people to present | 13:00:46 |
| 25 | | with symptomatic peripheral vascular disease also | 13:00:50 |



| | | | |
|---|---|---|---|
| 1 | | has led them to have blockages, also, in their | 13:00:52 |
| 2 | | coronary arteries. | 13:00:54 |
| 3 | Q. | Is there a relationship to cholesterol levels in | 13:00:58 |
| 4 | | peripheral vascular disease? | 13:01:00 |
| 5 | A. | It's not as strong as smoking and diabetes are to | 13:01:08 |
| 6 | | coronary artery disease and peripheral vascular | 13:01:08 |
| 7 | | disease. | 13:01:10 |
| 8 | | Smoking and diabetes are the two | 13:01:12 |
| 9 | | predominant risk factors in patients with peripheral | 13:01:16 |
| 10 | | vascular disease. | 13:01:18 |
| 11 | Q. | How about hypertension as a risk factor? | 13:01:20 |
| 12 | A. | For -- | 13:01:22 |
| 13 | Q. | Peripheral vascular disease. | 13:01:24 |
| 14 | A. | Again, it is not as strong a risk factor or | 13:01:30 |
| 15 | | causative agent in peripheral vascular disease as | 13:01:38 |
| 16 | | smoking and diabetes. | 13:01:38 |
| 17 | Q. | How about alcohol intake, is that a risk factor? | 13:01:42 |
| 18 | A. | In certain studies alcohol intake at one to two | 13:01:50 |
| 19 | | drinks a day is beneficial. At higher levels it has | 13:01:54 |
| 20 | | been shown to be somewhat detrimental. Again, more | 13:01:58 |
| 21 | | so for coronary artery disease than peripheral | 13:02:02 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

vascular disease. 13:02:02

MR. SHEPPARD: Okay. Let's take a lunch break. 13:02:06

(Whereupon, the noon recess was taken.) 13:58:56



BY MR. SHEPPARD:

Q. We have taken a lunch, Doctor, and let me continue on with our discussion of your opinions and your report submitted as expert testimony dated June 2nd, 1997. 13:58:58 13:59:02 13:59:08 13:59:08

In respect to the economics of the matter, I did not ask you about Medicaid patients -- or Medicare patients. Does your group also see those patients? 13:59:16 13:59:20 13:59:26 13:59:26

A. Medicare patients? 13:59:28

Q. Yes. 13:59:28

A. Yes. 13:59:28

Q. Do you know what percentage of your patient load would be patients that would be eligible for that program? 13:59:30 13:59:34 13:59:34

A. Medicare? 13:59:36

Q. Yes. 13:59:36

A. Usually between 40 to 50 percent. 13:59:40

Q. Okay. And does that follow, then, that a significant portion of the patients that you see are age 65 and over? 13:59:46 13:59:52 13:59:54

A. Yes. 13:59:54

Q. The description of your practice mentions that -- 14:00:14

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

and you have talked about, to some limited degree, the relationships and places of business that -- 14:00:16 14:00:24

seeing patients outside Minneapolis? 14:00:26

A. Yes. 14:00:28

Q. Are those billings for those services made out of the central office here? 14:00:32 14:00:34

A. Yes. 14:00:34

Q. Do you know whether or not there is any differentiation in terms of a dollar amount for a given service as to whether it's rendered in one of these towns, these outreach towns, or in Minneapolis? 14:00:38 14:00:40 14:00:44 14:00:48 14:00:48

A. I don't know for certain, but I don't believe so. 14:00:52

Q. But as far as your personal knowledge, you don't know? 14:00:54

A. I don't know. 14:00:56

Q. Okay. Now, in respect to these medical costs and the generalized figures that are in your report, it would be true that the medical costs for the given procedures would be the same whether the patient had a risk factor of smoking or not? 14:01:06 14:01:08 14:01:12 14:01:18 14:01:24

A. For which procedures are we talking about? 14:01:30

Q. The procedures that you do as part of your personal practice. 14:01:34 14:01:34

A. It would depend on which procedure, at which particular time, which patient -- I don't think that that can be generalized to smokers versus nonsmokers 14:01:40 14:01:44 14:01:50

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

as opposed to people who had -- let's just leave it -- I don't think it could be said that smokers or nonsmokers cost the same. 14:01:54 14:01:56 14:01:58

Q. Can you break down your answer any more? 14:02:02

A. The -- 14:02:06

Q. Are there certain procedures you think might have a higher or lower cost because the person is a smoker? 14:02:08 14:02:10

A. As far as their risk coming to the procedure, if a patient, a given patient, who has the additional causative agent of smoking on top of high cholesterol, that patient, as opposed to presenting with single vessel coronary disease, may have multiple vessel coronary disease. 14:02:18 14:02:24 14:02:26 14:02:32 14:02:36 14:02:38

That patient may then require a bypass surgery because they were a smoker, where if they -- their brother or sister, who was not a smoker, may avoid a procedure altogether or may get an angioplasty. 14:02:40 14:02:44 14:02:48 14:02:54 14:02:56

So I don't think it can be generalized by saying that smoking -- procedures on smokers versus nonsmokers cost the same. 14:03:02 14:03:04 14:03:06

Q. Do you keep any statistics in your office on those cost breakdowns that you know about? 14:03:08 14:03:10

A. We do not. 14:03:12

Q. Do you do bypass surgeries or participate in them? 14:03:16



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. We -- cardiologists generally do not do or participate in bypass surgeries, the actual surgery. 14:03:20 14:03:24

Q. Now, we were talking before the break about your report and the part of the report that was talking about strokes, right? Remember that conversation? We talked briefly about that. 14:03:36 14:03:40 14:03:50 14:03:52

A. Oh, yes. 14:03:52

Q. I want to follow up and ask you whether there are strokes that you see in your experience that are not related to a clot formation. 14:03:56 14:04:00 14:04:06

A. There are strokes that are called hemorrhagic strokes where a blood vessel in the head that bursts, that there is a bleeding into the brain. 14:04:10 14:04:16 14:04:20

Q. Do you care for patients that have those conditions? 14:04:34

A. We do. 14:04:36

Q. Okay. Are those sometimes related to genetic factors, particularly configurations of parts of the body? 14:04:40 14:04:44 14:04:46

A. Yes. 14:04:46

Q. Are there other kinds of strokes, other than the hemorrhagic, that do not have a clot formation? 14:04:48 14:04:54

A. There is a particular type of stroke called the Lacunar infarct that is particularly related to hypertension. 14:05:00 14:05:04 14:05:08

Q. Can you see that type of stroke in your practice? 14:05:14





A. The incidence of that type of stroke, in hemorrhagic stroke, have come down with the treatment of 14:05:18 14:05:20

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

hypertension. 14:05:20

Q. But you still see people who have had that type of stroke? 14:05:28

A. Yes. 14:05:28

Q. Now, you told us earlier that you had had one earlier draft of this report that's been marked as 1752. 14:05:44

Do you still retain that earlier draft? 14:05:50

A. No, sir. 14:05:50

Q. That's destroyed? 14:05:52

A. Yes, sir. 14:05:52

Q. So would you have any other record, written record, relating to the preparation of this report? 14:05:58

A. No, sir. 14:06:00

Q. Now, we had some indication that you were going to make a study or had made a study of certain witness reports in this litigation for the plaintiff that were prepared at or for other witnesses, medical witnesses. 14:06:06

A. Can you tell me -- I don't know what you mean. 14:06:24

Q. Let me see if I can make it a little clearer. 14:06:26

In preparation for your deposition have you studied the deposition transcript of any of the 14:06:30



physicians who have testified in this particular litigation? 14:06:36

A. I have read the testimony of Dr. Barbara Bowers and Dr. Scott Davies. I have looked over the testimony 14:06:44

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

that was made available to me for Dr. Hurt and Dr. Samet. 14:06:54 14:06:56

Q. Now, have you reviewed those reports and what appears to be a deposition transcript? I can't quite tell from here. That's what it looks like from here. 14:07:00 14:07:04 14:07:06 14:07:08

MR. EISBERG: That's not a deposition. 14:07:10

MR. SHEPPARD: That's not? 14:07:10

BY MR. SHEPPARD:

Q. Let me withdraw it and go about it this way: In reference to the matters that you just talked about that you have reviewed, did you review those prior to June 2nd, 1997, when you signed off on your report marked as Exhibit 1752? 14:07:14 14:07:16 14:07:18 14:07:22 14:07:24

A. No, sir. 14:07:26

Q. So you reviewed them between that time and now? 14:07:30

A. Yes, sir. 14:07:30

Q. In respect to those statements, you had indicated earlier you had one discussion with the oncologist, I believe. 14:07:38 14:07:40 14:07:40

A. Uh-huh. 14:07:42



Q. Have you had any oral discussions with any of those other people mentioned there? 14:07:44 14:07:44

A. No, sir. 14:07:46

Q. Okay. But in respect to whatever they had to say or not say, that could have no impact upon what you had prepared as your witness report dated June because you didn't have them at that time? 14:07:54 14:07:58 14:08:00 14:08:02

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. No, sir. 14:08:02

Q. Okay. Are there doctors that are within your group that are not cardiologists? 14:08:18 14:08:20

A. We have two physicians in our group who are internists who have taken additional training in cardiology who are not board certified but who do specialized work within our practice. 14:08:24 14:08:26 14:08:32 14:08:48

I might say that the Minneapolis Heart Institute is a confederate of groups that are three cardiovascular surgery groups, cardiac anesthesiologists and interventional radiologists, so it depends upon how you define our group, is my answer. 14:08:50 14:08:52 14:08:56 14:09:00 14:09:02 14:09:02

Q. So I was narrowly defining it to those doctors that you practice with cardiology or internal medicine but that focus on cardiology. 14:09:06 14:09:08 14:09:10

But you do have relationships with doctors who provide other services to patients? 14:09:14 14:09:16



A. Yes. 14:09:16

Q. Now, are that -- just one question on that. Is that an entity that is linked for billing purposes or do the different anesthesiologists, for example, bill separately from the cardiologists/interns? 14:09:24 14:09:28 14:09:32 14:09:34

A. The usual practice is that they all -- everybody bills separately. The Minneapolis Heart Institute is, basically, a marketing organization for the entities. 14:09:36 14:09:42 14:09:44 14:09:46

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Now, in respect to your statement in the billing discussion there on the cost of services, do you have any particular familiarity with fees paid by the State of Minnesota for medical care in other areas other than where you practice? 14:10:04 14:10:08 14:10:14 14:10:16 14:10:20

A. No, sir. 14:10:20

Q. Now, in respect to your report, now, in that report, if I understand it, I want to make sure that we do start on page 2 of the document, and that identifies yourself and then you indicate that, quote, your -- "This testimony will focus primarily on the clinical presentation of coronary artery disease and its subsequent course." 14:10:50 14:10:52 14:11:00 14:11:06 14:11:08 14:11:12 14:11:14

Is that -- 14:11:16

A. Where are you? 14:11:16

Q. Last paragraph on page 2. 14:11:18



A. Okay. 14:11:18

Q. Right? 14:11:20

A. Yes. 14:11:20

Q. And that is your intent? 14:11:22

A. Yes, sir. 14:11:22

Q. Okay. And then you go on in the report and you talk about coronary artery disease, right, and you cover that on pages 3 through halfway down page 7; is that right? 14:11:26 14:11:32 14:11:46

A. Yes, sir. 14:11:48

Q. So by reviewing -- would it be true by reviewing the content of those pages, we would then know the 14:11:52 14:11:56

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

testimony you are prepared to render at trial in respect to coronary artery disease? 14:12:00 14:12:02

A. I -- on the bottom of page 2, the last sentence reads "The clinical presentations presented are not all-inclusive, but represent common clinical scenarios." 14:12:08 14:12:18 14:12:22 14:12:24

So if questions will come up about other scenarios that would be related to presentations of coronary artery disease, I would be prepared to discuss those, also. 14:12:26 14:12:32 14:12:36 14:12:36

Q. Okay. Well, since this is our opportunity to, you know, investigate those things and know what topics and content that you are going to provide at trial, 14:12:38 14:12:42 14:12:44



give us some examples of what that might be, if you can. 14:12:48 14:12:48

A. Potentially, arrhythmia treatment not related to sudden cardiac death. Are you waiting? Do you want more? 14:13:00 14:13:34 14:13:34

Q. Yeah, I am waiting. I don't necessarily want more or not want more, I just want to have you answer that question. You gave that as an illustration. 14:13:36 14:13:38 14:13:40

A. The -- that was an illustration. Again, I guess there are many facets of the, you know, potential for presentation of coronary artery disease that we could spend the rest of -- again, the rest of the day talking about, but I try to stick to the large ones. 14:13:48 14:13:54 14:13:58 14:14:00 14:14:06 14:14:08

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

There are some categories under those such as, you know, non-sustained ventricular tachycardia, other rhythm management -- ventricular septal defects post-infarction, left ventricular rupture, complications from any of the procedures listed that could conceivably be covered. 14:14:12 14:14:20 14:14:28 14:14:34 14:14:40 14:14:46

There is an incidence of stroke post-bypass surgery that is not listed here, but if somebody wanted to ask me about that, that is part of the clinical practice of cardiology that we would hope not to but expect at times to encounter. 14:14:48 14:14:54 14:15:00 14:15:06 14:15:10



Q. Okay. So let me try to summarize that. 14:15:16

You have put in your report a description of the clinical matters that you intended to testify at trial that you most regularly see. There could be others that you occasionally see that you would be prepared to talk about, and you have generated in the last few moments a listing of those? 14:15:22 14:15:24 14:15:28 14:15:32 14:15:36 14:15:38

A. Yes, sir. 14:15:38

Q. Is that a reasonable statement? 14:15:40

A. That's reasonable. 14:15:40

Q. So by review of this exhibit, 1752, we can tell, as lawyers for the defense side, what you are going to cover at trial, right? 14:15:48 14:15:52 14:15:54

A. With those caveats. 14:15:56

Q. With the caveats related to arrhythmias and complications and that type of thing? 14:16:00 14:16:02

A. And other -- yes. 14:16:04

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: https://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 18 | Q. | But as far as subject areas we are concerned, you | 14:16:08 |
| 19 | | are locked in on this report? | 14:16:10 |
| 20 | A. | This is what we would focus on as the major | 14:16:14 |
| 21 | | presentations of coronary artery disease. And | 14:16:20 |
| 22 | | again, there are presentations that can arise that | 14:16:24 |
| 23 | | may not be covered here. | 14:16:24 |
| 24 | Q. | Right. And you have talked about those, some of | 14:16:28 |
| 25 | | those, anyway, I am sure there is rare things that | 14:16:30 |



| | | | |
|---|---|---|---|
| 1 | | you see in your practice, but my point of it is you | 14:16:32 |
| 2 | | have in this report, these things you mentioned, | 14:16:34 |
| 3 | | covered what you are going to cover in your | 14:16:36 |
| 4 | | testimony at trial? | 14:16:38 |
| 5 | A. | For the most part, these would represent the most | 14:16:44 |
| 6 | | common scenarios seen in the practice of clinical | 14:16:46 |
| 7 | | cardiology. | 14:16:48 |
| 8 | Q. | So let me get an answer to my question because this | 14:16:52 |
| 9 | | is an important one. | 14:16:54 |
| 10 | | With those caveats that you mentioned in | 14:17:00 |
| 11 | | regards to arrhythmias and complications, this is | 14:17:02 |
| 12 | | what you are going to talk about -- to the jury | 14:17:06 |
| 13 | | about at trial, what's in this report, right? | 14:17:08 |
| 14 | A. | This is the substance of what I would speak about | 14:17:10 |
| 15 | | with the jury at trial. | 14:17:12 |
| 16 | Q. | Okay. Let me have marked this study, which I | 14:17:20 |
| 17 | | believe is one that you reference in that report, | 14:17:22 |
| 18 | | and we will be at 1753. | 14:17:26 |
| 19 | | (Defendants' Exhibit 1753 was marked for | 14:17:28 |

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/yhxd0001

identification.) 14:18:02

BY MR. SHEPPARD:

Q. Let me hand you, Doctor, what has been marked as 1753. I believe that's one of the articles referenced as part of your report. 14:18:06 14:18:12 14:18:16

A. Do you want me to have like three copies? 14:21:30



Q. No, we will only harken to one. 14:21:40

(A discussion was held off the record.) 14:21:40

BY MR. SHEPPARD:

Q. You have had an opportunity to reexamine that document, have you not? 14:21:50 14:21:50

A. Yes. 14:21:50

Q. You are familiar with that study? 14:21:52

A. Yes, sir. 14:21:54

Q. Are you in general agreement with its conclusions? 14:21:58

A. Yes, sir. 14:21:58

Q. Do you have any disagreements with it based upon your clinical experience with its conclusions? 14:22:04 14:22:06

A. No, sir. 14:22:08

Q. And is this one of the references in respect to data that you rely upon in providing the physician care to your patients? 14:22:24 14:22:28 14:22:30

A. Yes, sir. 14:22:30

Q. I want to call your attention on page 1383 of this exhibit, under the Introduction, it says, "High serum cholesterol is regarded by many as the main cause of coronary atherosclerosis." 14:22:38 14:22:42 14:22:46 14:22:50

http://legacy.library.ucsf.edu/id/msm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Do you agree or disagree with that? 14:22:52

A. I would agree with the premise that some people think that it is the main cause; others do not, so I do not agree -- it depends on what your definition of "many" is. 14:23:02 14:23:08 14:23:12 14:23:14

Q. So you would agree that there are cardiologists who would concur in that viewpoint that it would be the main cause of coronary atherosclerosis? 14:23:20 14:23:24 14:23:26

A. There are cardiologists who would say that high serum cholesterol is the main cause of coronary atherosclerosis in this world. 14:23:30 14:23:34 14:23:36

Q. And in respect to your opinions, are you -- do you share that opinion that's advanced in this article? 14:23:42 14:23:44

A. To which opinion are you -- I want to be specific to which opinion -- 14:23:50 14:23:52

Q. Sure, that first sentence of the introduction that we have talked about, "High serum cholesterol is regarded as the main cause" -- I am going to eliminate the "many" because you talked about that -- "as the main cause of coronary atherosclerosis." 14:23:54 14:23:58 14:24:00 14:24:02 14:24:04 14:24:04

A. I do not think that that's the -- an accurate statement. 14:24:08 14:24:08

Q. Okay. You think that high serum cholesterol is a risk factor for coronary atherosclerosis? 14:24:14 14:24:16

A. Yes, sir. 14:24:18

Q. And there is a relationship between the levels of 14:24:22

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

25 elevation of cholesterol and coronary 14:24:26

1 atherosclerosis? 14:24:28
2 A. In a modern era, we usually don't talk of total 14:24:36
3 cholesterol. 14:24:38
4 Q. Okay. 14:24:38
5 A. And so there is an association between dislipidemia 14:24:44
6 or pertubations of cholesterol levels and 14:24:54
7 atherosclerosis. 14:24:56
8 Q. So you pay more attention to what lay people call 14:25:00
9 the level of the bad cholesterol? 14:25:04
10 A. And the good cholesterol. 14:25:06
11 Q. And the good cholesterol? 14:25:06
12 A. And the good cholesterol, and the triglycerides. 14:25:12
13 Q. Okay. I want to go back and talk to you a little 14:25:22
14 bit about the situation concerning when you are 14:25:24
15 working with a patient who has been referred to you 14:25:28
16 and you have assessed that patient and you are 14:25:34
17 deciding whether or not to recommend the 14:25:40
18 administration of -- or the taking of anti -- or 14:25:42
19 cholesterol-lowering drugs. Okay? 14:25:46
20 A. Uh-huh. Yes. 14:25:46
21 Q. Now, in respect to that situation, you said that 14:25:52
22 you, first of all, generally advise the person if he 14:25:56
23 has certain risk factors that he can modify, or she, 14:26:00
24 that they do that? 14:26:02
25 A. Yes. 14:26:02

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Okay. Now, let's assume that, as you testified, smoking you regard as a risk factor. Okay? And obesity and diet you regard as a risk factor. Okay? 14:26:08 14:26:12 14:26:14 14:26:16

A. Yes. 14:26:16

Q. All right. So if a patient comes in and has -- is a nonsmoker but has a lousy diet, high-fat diet, and can't seem to modify it after you have talked to them and maybe referred them to a nutritionist, do you then at a certain -- if they have a certain level of the so-called bad cholesterol, a threatening triglyceride level, then give them a prescription for these medications to reduce their cholesterol? 14:26:20 14:26:26 14:26:30 14:26:34 14:26:36 14:26:42 14:26:46 14:26:50 14:26:50

A. If they have concomitant risk factors that would make them a candidate for that. 14:26:54 14:26:54

Q. How many risk factors -- do they have to have two risk factors? 14:26:58 14:26:58

A. According to the Adult Treatment Guidelines, it would depend, first of all, whether they had disease or not. Second of all, whether they had two or less than two or greater than two risk factors, and then as a clinician looking at those risk factors and deciding is this something that this patient in an individualized sense can and will do. 14:27:04 14:27:06 14:27:12 14:27:16 14:27:20 14:27:26 14:27:30



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Under those guidelines does it -- given the same situation, vis-a-vis whether there is disease present or not disease present, does it matter which of the two risk factors are present? 14:27:36 14:27:42 14:27:46 14:27:46

A. These are population guidelines, and the goal of the panel that put these together was to make them simple for clinicians to use, so they are not weighted. 14:27:50 14:27:56 14:27:58 14:27:58

Q. And so then the answer to my question is any two? 14:28:04

A. Any two, yes. 14:28:06

Q. Okay. And that would be true, then, if the two risk factors do not include smoking? 14:28:10 14:28:12

A. Yes, sir. 14:28:12

Q. And do you follow, then, those guidelines in your practice? 14:28:18 14:28:18

A. Generally, yes. 14:28:20

Q. Have you prescribed these medications, cholesterol-lowering medications, for patients who, for whatever reason, have not followed or adhered to your advice to quit smoking? 14:28:28 14:28:32 14:28:34 14:28:36

A. Yes, sir. 14:28:38

Q. Did the medications work under those circumstances? 14:28:42

A. They do work. Can we define "work"? 14:28:52

Q. Okay. That's fair. 14:28:54

Do they, as they are designed and 14:28:58



developed to do in these individuals, do they lower their cholesterol levels? 14:29:00 14:29:04

A. Yes. 14:29:06

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Q. Have you done any kind of study to determine with those patients what their outcomes are after a period of time on those medications? 14:29:18 14:29:22 14:29:26

A. On the -- 14:29:28

Q. Smokers who are on cholesterol-lowering medication. 14:29:30

A. We have not done particular studies on that. 14:29:34

Q. Have you -- at your Heart Institute, have you been involved in any particular studies that have related to smoking as a risk factor? 14:29:38 14:29:42 14:29:44

A. The Coronary Bypass Grafting Intervention Study accounted for and tracked smoking and lipid lowering in patients post-bypass. One of the interventions in that trial was not stop smoking intervention. 14:29:54 14:30:00 14:30:06 14:30:10

Q. What were the interventions? 14:30:14

A. Lipid lowering and low dose Coumadin. I referenced that study earlier. 14:30:26 14:30:28

Q. Yes. So this was a study where people, if they did smoke and chose to continue, they did, and so that was not a -- ceasing that was not an intervention and the interventions were the cholesterol-lowering medications and -- 14:30:32 14:30:36 14:30:40 14:30:44 14:30:46

A. Low dose -- 14:30:48



Q. -- low dose Coumadin? 14:30:50

A. -- Coumadin. That's right. 14:30:52

Q. And you will have to update me. Is that a study that's still ongoing or did you publish the reports? 14:30:54 14:30:58

A. This study has been completed and the results have 14:31:00

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

been published in the New England Journal six months ago, roughly. 14:31:12 14:31:14

Q. Has the article been prepared and written? 14:31:16

A. Yes. It has been published. 14:31:18

Q. Oh, it has been published? 14:31:20

A. In the New England Journal. 14:31:22

Q. Six months ago? 14:31:24

A. Roughly. 14:31:24

Q. What were the conclusions or observations of that research? 14:31:26 14:31:26

A. It fell in line with the other secondary prevention trials that lipid lowering helped cease the progression of coronary disease in the patients; low dose anticoagulation had no benefit. 14:31:32 14:31:42 14:31:48 14:31:52

Q. And this was in patients that continued to smoke or included patients that continued to smoke? 14:31:56 14:31:56

A. I would have to reference the exact amount of patients in the study who were active smokers. 14:32:00 14:32:04

Q. That would be something that would be reflected in the article? 14:32:08 14:32:08



A. Yes. 14:32:10

Q. We are going to show you a couple of additional articles that I think that we sent up in compliance with the system here for -- as potential documents we are going to use, but while we are digging those out, let me ask you a little bit about your interviews with the newspapers. 14:32:30 14:32:34 14:32:40 14:32:42 14:32:44 14:32:52

And I saw a reference in one of them to a 14:32:56

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

study at Abbott Northwestern Hospital, younger patients at risk for early heart disease if high levels of amino acid, homocystinemia? 14:33:04 14:33:06 14:33:10

A. Homocystinemia. 14:33:12

Q. Were you involved in that? 14:33:16

A. We have been testing patients who are 55 and under to see if they have an entity called homocystinemia; H-O-M-O-C-Y-S-T-I-N-E-M-I-A, I think. 14:33:24 14:33:36

That is a -- in certain patients can be a metabolite that is not readily cleared from the system that can cause arterial irritation. 14:33:54 14:34:00 14:34:02

Q. And what have you been determining in -- is this an ongoing study? 14:34:10 14:34:10

A. It's an initial collection of data that we have not digested and published the data as of yet. 14:34:14 14:34:20

Q. Oh, I see. So ultimately, this data might find its way into a paper? 14:34:24 14:34:28



A. Yes. 14:34:28

Q. Do you know when that study information will be in the form so that it could be published? 14:34:34 14:34:36

A. Hopefully within the next year. 14:34:36

Q. And you also -- and we talked a little bit about this earlier, and I won't go back through that part of it, but in respect to exercise, sedentary lifestyle, I take it that you work with recreational therapists or physical therapists or exercise -- 14:34:50 14:34:52 14:34:56 14:35:00 14:35:06

A. Exercise physiologists. 14:35:08

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Exercise physiologists. 14:35:08

A. We have relationships with several of them. 14:35:18

Q. If you had a patient that you thought would benefit from exercise and a less sedentary lifestyle, you would ask them to go see one of these exercise physiologists? 14:35:20 14:35:26 14:35:28 14:35:30

A. And the structure for patients in secondary prevention is then through cardiorehabilitation programs, which are largely monitored by people with some expertise in exercise physiology. 14:35:32 14:35:36 14:35:38 14:35:40

Q. So that is something that would be offered right there at the hospital or within the hospital or near the hospital? 14:35:44 14:35:46 14:35:46

A. Most of the, again, cardiac rehab programs are spread -- 14:35:52 14:36:14



Q. Now, you indicated on your CV that you had an interest in the transplant. 14:36:18 14:36:20

(A discussion was held off the record.)

BY MR. SHEPPARD:

Q. I need to ask you to follow up on that. 14:36:38

A. Okay. 14:36:38

Q. In respect to cardiac rehab programs. 14:36:40

A. Oh, most of our -- the cardiac rehab programs that we use are spread around the state because our referral population -- you know, we can't travel great distances to come to a -- most of -- what I said is most of our referral population can't travel 14:36:44 14:36:48 14:36:52 14:36:58 14:37:02

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

the great distances to go to cardiac rehab two or three times a week. Most of those programs are located either in the towns or close to in the suburbs where the patients reside. 14:37:06 14:37:10 14:37:14 14:37:16

Q. Now, in your CV you indicate that you have research emphasis on post-transplant atherosclerosis. 14:37:32 14:37:36 14:37:36

A. In my fellowship I pursued some of the post-transplant atherosclerosis and have served as an advisor to the cardiac transplant program at Abbott Northwestern Hospital regarding atherosclerosis that tends to come up several years 14:37:46 14:37:52 14:38:04 14:38:06 14:38:14



post-transplant and the treatment of that; the prevention of that would be a better way of saying it. 14:38:20 14:38:22 14:38:22

Q. So are you still actively engaged in that as a research emphasis? 14:38:28 14:38:28

A. I am just advisor to the transplant department. They are doing some follow-up research studies and that which I am not actively involved in. 14:38:34 14:38:38 14:38:42

Q. And you wrote an editorial that you have listed here in your CV in 1996 about a -- when a medical device fails? 14:38:44 14:38:52 14:38:54

A. Yes. 14:38:54

Q. Do you remember that? How did you get involved in that situation? 14:38:58 14:38:58

A. I was invited by the Mayo Clinic to review the 14:39:04

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

article as a peer reviewer for the devices that they -- the particular device that had had a problem, and after my review they invited me to write an editorial about that. 14:39:14 14:39:16 14:39:20 14:39:22

Q. And I want to see if I can ask you a couple different times about how you spent your professional time. 14:39:40 14:39:46 14:39:46

And I would like to get -- ask you to answer the question again and give you an opportunity to tell me about all the things you do 14:39:48 14:39:50 14:39:52



and how much time you spend on it so we have it recorded in one place, if you can. 14:39:54 14:39:56

I know you spent 15 percent of the time on this and 3 to 5 percent of the time on this. I want to make sure, you know, I have asked you everything that you do professionally. 14:39:58 14:40:02 14:40:04 14:40:04

A. I will try my best to tell you, but I do a lot of things, and in the confines of my description of my practicing cardiologist, 80 percent of my time is spent in consultative cardiology, 15 percent spent in preventive cardiology. 14:40:10 14:40:18 14:40:28 14:40:38 14:40:42

Now, obviously, some of those areas will overlap because when we see the vast majority of the patients that we see with atherosclerosis will need preventive measures, and many of the preventive patients that we see in the preventive clinic, obviously, have atherosclerosis and may need cardiac help. 14:40:46 14:40:50 14:40:58 14:41:00 14:41:04 14:41:08 14:41:10

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

The remaining 5 percent of my practice is engaging with the strategic planning appropriateness criteria. The teaching time that we do is bridged within the clinical practice. Oftentimes residents or medical students will come and spend time in the prevention clinic or on clinical rounds with us, with me. 14:41:18 14:41:24 14:41:28 14:41:32 14:41:34 14:41:38 14:41:40



Q. Would that time, then, fall within the 15 percent on preventive cardiology? 14:41:46 14:41:48

A. Between both. Sometimes they would be involved in attending with consultative cardiology and sometimes they would come to our preventional clinic. 14:41:50 14:41:52 14:41:56

Q. So that's a -- roughly 100 percent of the time as a practicing cardiologist. 14:42:00 14:42:02

Now, are there any other activities that relate to cardiology or medicine that you engage in? 14:42:04 14:42:06

A. I would -- the talks that we have spoken about, the ProMedicos, fall outside of the purview of the daily cardiology activities. 14:42:12 14:42:22 14:42:34

(Whereupon, the witness's pager went off.)

THE WITNESS: Can I just take one break to get this, please. 14:42:36 14:42:38

MR. SHEPPARD: Sure. 14:42:38

(A recess was taken.) 14:50:00

BY MR. SHEPPARD:

Q. With respect to that post-transplant program, are persons who are former smokers eligible to have a 14:50:02 14:50:08

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

transplant? 14:50:08

A. If they stopped smoking, they would be considered for transplant. 14:50:10 14:50:12

Q. If they are current smokers, would they be considered? 14:50:16 14:50:16



A. No. 14:50:16

Q. How much time would they have had to quit to be considered as former smokers, at least according to the criteria of the program? 14:50:22 14:50:26 14:50:28

A. I am not sure what the criteria of the program are. 14:50:32

Q. Are we talking like six months or -- 14:50:34

A. I am not sure. 14:50:34

Q. You just don't know? 14:50:36

A. I just don't know. 14:50:38

Q. Persons who smoke and have some accident, car accident or something, are they suitable heart donors? 14:50:44 14:50:48 14:50:48

A. They -- 14:50:52

Q. Assuming they meet the generalized medical evaluation. 14:50:54 14:50:56

A. There are criteria for donor transplantation. In certain number of risk factors those patients will actually undergo angiograms before they are cleared for transplantation, and my area of expertise is not the pre-transplant evaluation, so I don't think I can answer that further. 14:51:02 14:51:06 14:51:12 14:51:16 14:51:24 14:51:24

Q. Okay. You are really no longer much associated with the transplant program? 14:51:30 14:51:30

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. No, I am just -- as far as the -- I try and give them help in this very difficult area when I can. 14:51:34 14:51:38

Q. Now, on these cholesterol-lowering drugs, let me ask you a few follow-up questions on that. 14:51:50 14:51:52

Is there a particular one of these -- are they called statins, is that the name of it? 14:51:56 14:51:58

A. Statins, yes. 14:52:00

Q. Is that the principal type or family of drug that you use today? 14:52:02 14:52:02

A. For lowering LDL cholesterol, that has become the -- the class of drugs has become the dominant class. 14:52:06 14:52:12 14:52:12

Q. Okay. As a cardiologist, do you place a great deal of significance, then, on the lowering of the LDL? 14:52:22 14:52:28

A. Yes. 14:52:28

Q. And when you recommend an order for patients, this particular type of cholesterol-lowering drug, is that generally the purpose, to lower the LDL? 14:52:40 14:52:42 14:52:44

A. The -- certain classes of the statins, atorvastatin and also higher dose simvastatin, S-I-M-V-A-S-T-A-T-I-N, also have some beneficial effects as far as lowering triglycerides and a mild effect as far as increasing HDL cholesterol, so we -- you have to individualize therapy for lipid lowering. 14:52:54 14:53:00 14:53:10 14:53:14 14:53:18 14:53:24 14:53:26

Some people have predominantly higher trigylcerides, lower HDL cholesterol. We know, 14:53:28 14:53:32

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

actually, that cigarette smoking elevates triglycerides and lowers HDL cholesterol. 14:53:38 14:53:42

Q. And which study indicates that? 14:53:44

A. I would have to -- if you want -- a specific reference, there are several studies that have looked at that. 14:53:48 14:53:50 14:53:50

Q. There is not one of those listed in your report? 14:53:52

A. No, there is not. 14:53:54

Q. So you individualize, then, the particular type within the family of the medication that you might prescribe depending on the particular need, as demonstrated by the numbers for these LDL, HDL or triglycerides? 14:53:56 14:54:00 14:54:04 14:54:08 14:54:10

A. Yes, sir. 14:54:10

Q. So you kind of custom tailor? 14:54:14

A. Attempt. 14:54:14

Q. Attempt to custom tailor, right. 14:54:16

So you, then, would use these drugs from different manufacturers? 14:54:18 14:54:18

A. Or different drugs in different combinations. 14:54:22

Q. Okay. 14:54:22

A. Niacin with a statin, certain patients on Lopid with a statin, colestipol with a statin, or mixing sometimes even three drugs together. 14:54:30 14:54:38 14:54:38

Q. Now, when you talk to physicians who are not 14:54:44



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

cardiologists but internists or family care physicians, do you talk on this topic of how to, for lack of a better word, tailor-make a medical regimen for a particular patient? 14:54:48 14:54:52 14:54:56 14:54:58

A. Individualizing care, I think, would be a good term, and yes, I do try and address, in particular patients, their specific needs. 14:55:02 14:55:08 14:55:10

Q. Now, on the horizon are there new, improved drugs that are now in clinical trials that you are aware of in this particular field? 14:55:26 14:55:28 14:55:30

A. There are several drugs that are in the literature in animal studies at this time. Whether they will ever make it to human studies remains to be seen. 14:55:40 14:55:42 14:55:48

Q. These are a different family of drugs? 14:55:50

A. Different classes of drugs, different actions of -- modes of action. 14:55:52 14:55:54

Q. The -- as a cardiologist who has gained familiarity with these drugs because they have been around for a while now and you have prescribed them, do you have any kind of ballpark estimate as to what the market eventually would be for those drugs, or less business driven, how many patients might benefit, numbers of patients, from the utilization of these medications? 14:56:08 14:56:10 14:56:12 14:56:18 14:56:22 14:56:26 14:56:28 14:56:30

MR. EISBERG: Objection, lack of foundation. 14:56:32



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

THE WITNESS: Again, I can't speak to, you know, population-based subjects. I just, as I said earlier, kind of take them as they come through the door. 14:56:36 14:56:38 14:56:42 14:56:42

BY MR. SHEPPARD:

Q. Right, you have told us you are not an epidemiologist and you are not a statistician and you don't write articles on epidemiology and statistical stuff. 14:56:44 14:56:48 14:56:50 14:56:52

A. Uh-huh. 14:56:52

Q. You got to answer for her. 14:56:54

A. Yes. 14:56:54

Q. Excuse me. And you are a clinician, you are in the business of seeing the patients and trying to help them achieve the best result that they can? 14:56:58 14:57:00 14:57:06

A. Yes, sir. 14:57:06

Q. And you take them as they come in the door? 14:57:08

A. Yes, sir. 14:57:08

Q. Right? 14:57:10

A. Yes, sir. 14:57:10

Q. So with that exposure, are you in any way able to kind of give an estimate of how many persons would benefit from being on this -- these cholesterol-lowering medications that are not 14:57:12 14:57:18 14:57:20 14:57:22



presently on them? 14:57:24

A. I can't. I am sorry. I mean, that's away from the scope of what my testimony is about. 14:57:28 14:57:30

Q. We have been through that. Your testimony is laid 14:57:32

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

out in Exhibit 1752 and -- with the caveats about arrhythmias, and so forth, that we talked about, right, the practicing cardiologist? 14:57:38 14:57:40 14:57:42

A. That a practicing cardiologist would usually see, yes, sir. 14:57:44 14:57:44

Q. Right. Okay. Now, let me have this article marked as an exhibit. 14:57:48 14:57:50

(Defendants' Exhibit 1754 was marked for identification.) 14:57:54 14:58:36

BY MR. SHEPPARD:

Q. Let me hand you what's been -- a medical article previously submitted in a 1992 article from the Journal of Atherosclerosis and presently marked as Exhibit 1754 and hand that to you. 14:58:40 14:58:46 14:58:50 14:58:52

A. Okay. Thank you. 14:58:54

MR. EISBERG: Do you want Dr. Graham to read the article? 14:59:26 14:59:28

MR. SHEPPARD: If he has not had an opportunity to do it, I would at least -- 14:59:28 14:59:30

THE WITNESS: I have not seen it. 14:59:32

BY MR. SHEPPARD:



Q. Would you mind taking a few minutes, then, to go through it, and if you need to read it further as I ask you a few questions about it, I will certainly allow you to do that. 14:59:34 14:59:38 14:59:38 14:59:40

A. Thank you. 14:59:40

MR. GINDER: Are we off the record, then? 14:59:48

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

MR. EISBERG: This should be on the record. We just received these articles this morning. 14:59:50 14:59:52 14:59:52

MR. GINDER: I don't agree. I think it should be off the record. 15:00:04 15:00:06

MR. EISBERG: I am just saying the time counts. I don't care if we are off. 15:00:10 15:00:10

MR. GINDER: Well, I don't think -- we don't agree that the time counts. 15:00:14 15:08:06

BY MR. SHEPPARD:

Q. You have had an opportunity to read the medical article that has been marked as an exhibit and presented to you? 15:08:12 15:08:14 15:08:14

A. Yes, I have. 15:08:16

Q. Had you seen that prior to today? 15:08:18

A. I have not seen this particular article. 15:08:22

Q. Okay. Have you seen any other articles by that particular author? 15:08:28 15:08:28

A. I know Bill Roberts well, so I have seen much of his work. 15:08:32 15:08:32



Q. Is this finding consistent with the remainder of his work? 15:08:38 15:08:38

A. Bill Roberts is a person who tends to go on tangents. Bill Roberts is a pathologist, he is not a clinician, and he approaches medicine in -- as a pathologist, not a clinician would approach medicine. 15:08:46 15:08:50 15:08:56 15:08:58 15:08:58

Q. He refers to the expert panel of the National 15:09:06

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Cholesterol Educational Program. 15:09:06

A. Yes. 15:09:06

Q. Is that an organization and a panel that you are familiar with? 15:09:14

A. Yes. We kind of referenced that report in 1988, earlier, and the -- it's cited in number 2 of his bibliography as the first National Cholesterol Education Program, NCP, which I had talked about earlier; that's the appropriate reference for that. 15:09:20

Q. All right. So you do pay attention to what the expert panel of the National Cholesterol Educational Program states? 15:09:46

A. Yes. 15:09:50

Q. Do you adhere to their recommendations in respect to cholesterol-lowering medications? 15:09:54

A. Yes, and their -- that was the first panel. That 15:09:58



has since been updated with the Adult Treatment Guidelines, also, from that same panel, and we have spoken about that earlier today. 15:10:02

Q. Yeah. Okay. And when did they become effective? 15:10:04

A. 1992 or '93. 15:10:08

Q. Okay. 15:10:12

A. Those, I believe, were published in JAMA. 15:10:14

Q. Now, in respect to Dr. Roberts' views expressed here, well, to atherosclerotic risk factors, would you agree or disagree with those? 15:10:20

A. I would disagree with what he is saying here. Well, 15:10:30 15:10:36 15:10:38 15:10:44

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

let's ask you to -- could you break down the question? 15:10:46 15:10:48

Q. Because you might agree with some of it and not agree with other parts of it; is that it? 15:10:50 15:10:52

A. I would like to, you know, have a more specific if we are going to talk about agreements or disagreements. 15:10:54 15:10:56 15:10:56

Q. Okay. Let me see if I can narrow it down. 15:10:58

Would you agree that in his article he puts a great deal of emphasis on the medical significance of the level of the LDL cholesterol level in patients in respect to cardiovascular disease? 15:11:02 15:11:06 15:11:14 15:11:18 15:11:20

A. And he talks of the total serum cholesterol of less 15:11:22



3.9 millimoles per liter; MMOL/L would be the abbreviation. 15:11:32 15:11:32

Q. Now, in respect to the data that he is using here and the ten risk factors from this expert panel, the National Cholesterol Education Program, has this Adult Treatment Guidelines modified any of that? 15:11:40 15:11:42 15:11:46 15:11:50

A. The Adult Treatment Guidelines took into account these risk factors as risk factors in determining when lipids should be treated. 15:11:54 15:12:00 15:12:02

Q. So they are the ones that, in part, at least, comprise the two risk factor scenario? 15:12:04 15:12:08

A. Yes. 15:12:08

Q. Now, in respect to his viewpoint concerning there being, essentially, one atherosclerotic risk factor, 15:12:16 15:12:22

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

that being LDH level? 15:12:24

A. LDL. 15:12:24

Q. LDL, excuse me. Are you in agreement or disagreement with that? 15:12:26 15:12:28

A. I am in disagreement. 15:12:28

Q. Okay. Do you think that's too simplistic an approach to this complex issue in the human body? 15:12:34 15:12:36

A. It is past simplistic. 15:12:38

Q. So you would want to take into account, as you do with your patients, other risk factors, not simply the LDL level? 15:12:42 15:12:46 15:12:50



A. Yes. And he is talking about -- and as we talk about a Minnesota population, he is talking about somebody who has -- 15:12:54 15:12:58 15:13:00

Q. Excuse me. Talking about somebody who has -- 15:13:02

A. A total cholesterol roughly less than 150. He is talking about a skewed, very small portion of the population at hand. 15:13:04 15:13:10 15:13:18

Q. How, in your clinical experience here, has the population varied from that? 15:13:20 15:13:22

A. The -- again, I would have to rely on the epidemiologists and the population experts to furnish those figures, but in Dr. Roberts' own article, which I have just had a chance to glance at, he cites the cholesterol levels of the United States as being double, roughly, what he would see as a desirable level there. 15:13:28 15:13:34 15:13:38 15:13:40 15:13:46 15:13:54 15:13:56

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 17 | Q. | That would be inconsistent with what you have seen | 15:13:58 |
| 18 | | in your clinical practice? | 15:14:00 |
| 19 | A. | Yes. | 15:14:00 |
| 20 | Q. | What have you seen that's inconsistent with that in | 15:14:04 |
| 21 | | your clinical practice? | 15:14:06 |
| 22 | A. | If somebody can maintain a cholesterol level of, | 15:14:18 |
| 23 | | say, 130, making their LDL cholesterol potentially | 15:14:26 |
| 24 | | 70, they have decreased their cholesterol levels, | 15:14:42 |
| 25 | | but the portion of the population that can do that, | 15:14:46 |



| | | | |
|---|---|---|---|
| 1 | | in my clinical experience, especially in the | 15:14:50 |
| 2 | | population that we see with coronary disease, is | 15:14:52 |
| 3 | | almost nil. | 15:14:58 |
| 4 | | Now, again, I would defer to the | 15:15:00 |
| 5 | | epidemiologists and the statisticians to tell you | 15:15:06 |
| 6 | | what the usual cholesterol levels are in the | 15:15:12 |
| 7 | | population of ambulatory Minnesotans. | 15:15:20 |
| 8 | Q. | Now, are you familiar with the Minnesota Heart | 15:15:32 |
| 9 | | Survey? | |
| 10 | A. | Yes. | 15:15:36 |
| 11 | Q. | And what is your knowledge of that Minnesota Heart | 15:15:42 |
| 12 | | Survey? | |
| 13 | A. | The -- there are a couple of -- there are several | 15:15:50 |
| 14 | | Minnesota heart surveys that have been ongoing. | 15:15:54 |
| 15 | Q. | Let me narrow this one down a little bit. A | 15:15:58 |
| 16 | | heart -- the Minnesota Heart Survey, School of | 15:16:02 |
| 17 | | Public Health, University of Minnesota, Minneapolis, | 15:16:06 |
| 18 | | Minnesota? | 15:16:06 |
| 19 | A. | They are all from the -- | 15:16:08 |

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Oh, that didn't help you any. 15:16:10

Have you been a -- involved in any of 15:16:14

these Minnesota heart surveys? 15:16:16

A. There has been retrospective data collection 15:16:22

performed by Dr. Russell Luepker's group for 15:16:26

epidemiologic data from charts at Abbott 15:16:36



Northwestern Hospital that I am aware of. 15:16:38

Q. So there may have been data from patients that you 15:16:44

have seen that went into the survey, but you have 15:16:46

not furnished it or analyzed it? 15:16:48

A. No, sir. 15:16:48

Q. So are you generally tracking, because of your 15:16:52

professional interest, the findings of the Minnesota 15:16:56

Heart Survey?

A. I read those as -- when they are published. 15:17:00

Q. And are those studies studies of the population of 15:17:06

the Minneapolis area, basically? 15:17:10

A. I would not be qualified to -- because I have not 15:17:14

reviewed them recently -- to comment on that. 15:17:16

Q. Other than this Minnesota Heart Survey, are you 15:17:18

aware of any other studies that are particularly 15:17:20

germane to Minnesota patients with cardiovascular 15:17:26

disease that you might examine in your professional 15:17:28

role as a cardiologist? 15:17:30

A. Well, there are, you know, studies published from 15:17:34

the Mayo Clinic regarding certain facets of 15:17:38

cardiovascular disease from time to time. 15:17:42

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

There are particular cardiovascular studies that are published from the Heart Institute regarding cardiovascular disease and the foundation, from the University of Minnesota, from academic sources, so those would entail, certainly, Minnesota patients. 15:17:48 15:17:52 15:17:54 15:18:00 15:18:04 15:18:04

Q. Do you know Dr. Blackburn? 15:18:32

A. I have met Dr. Blackburn. 15:18:34

Q. Have you talked with him about any of his findings? 15:18:38

A. Not in the last nine years. 15:18:40

MR. SHEPPARD: Can we take about a ten-minute break here, see where we are? 15:18:50 15:18:52

(A recess was taken.) 15:18:56

BY MR. SHEPPARD:

Q. We have taken a brief break and let's see if we can finish up with your deposition testimony here in reasonably short order. 15:32:12 15:32:16 15:32:18

Jump around a little bit on the topics so if it becomes confusing to you, say something and we will develop the context a little bit more. 15:32:22 15:32:24 15:32:26

A. Okay. 15:32:26

Q. You said earlier -- you made some comment about nicotine patches and a no smoking program at the hospital. 15:32:32 15:32:40 15:32:40

Did you refer patients who you thought needed to quit smoking to that -- to a program? 15:32:46 15:32:48

A. To programs. 15:32:48

Q. To programs, yeah. And what I want to pin down is 15:32:52

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

what programs.

A. I think we furnished you with -- again, we are -- the Minneapolis Heart Institute's philosophy is not to keep the patients at the Heart Institute for services that can be provided in the community.

And since many of our patients come from outside the Twin Cities area, what we have done is tried to facilitate referral to the geographically closest stop smoking program.

Q. So your group does not operate a stop smoking program?

A. No, but we have put together a -- which we, I think, gave you among a list of publications, a stop smoking directory of all the programs in the state of Minnesota.

MR. SHEPPARD: Did you see that, Carol? Maybe that never got to us.

MR. EISBERG: In our list of references.

THE WITNESS: No, I had Pat -- I had it in my hands so she should have sent it over. It did not get here?

BY MR. SHEPPARD:

Q. No.

A. My apologies.

MR. EISBERG: No.

THE WITNESS: That's a directory of the

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

stop smoking programs in the state of Minnesota that the Heart Institute Foundation has published, now, two renditions of so that we can, hopefully, quickly facilitate by location some geographic referral for people with stop smoking programs. 15:34:02 15:34:04 15:34:08 15:34:18 15:34:18

BY MR. SHEPPARD:

Q. So we, apparently -- for whatever reason, you had it in your hand but it's not here? 15:34:22 15:34:22

A. I apologize. 15:34:24

Q. But the point is, it's a listing, just a listing of stop smoking programs throughout the state? 15:34:26 15:34:28

A. Yes. 15:34:28

Q. Now, but are you actively involved in any of them as a clinician? 15:34:32 15:34:32

A. No. 15:34:32

Q. Okay. This was, I think you said, published by the foundation? 15:34:36 15:34:36

A. Yes. 15:34:36

Q. And you talked about nicotine patches. 15:34:40

A. Yes. 15:34:40

Q. Do you occasionally prescribe those? 15:34:42

A. Yes. 15:34:42

Q. And do you do follow-up with people on them? 15:34:48

A. We only occasionally prescribe those because we think that people need to follow up in their 15:34:54 15:35:00



http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

supportive messages as far as when they attempt to quit smoking or do quit smoking. 15:35:04 15:35:06

And, again, we think of that as best done in a primary care setting by a physician who they are going to have a long-term relationship with. 15:35:08 15:35:10 15:35:12

That fits with, you know, our philosophy of things such as this being done that can be done in a primary care setting, being facilitated in a primary care setting. 15:35:16 15:35:20 15:35:24 15:35:26

Q. Are there cardiologists at the Heart Institute that smoke, your colleagues? 15:35:30 15:35:32

A. Not to my knowledge. 15:35:34

Q. In respect to Medtronic, you said, I think early on, you did some consulting work for them? 15:35:38 15:35:40

A. Yes, sir. 15:35:42

Q. I don't want to get into their private matters except to ask you about is it all limited to medical devices, pacemakers, arrhythmia control devices, or whatever, for the heart? 15:35:44 15:35:46 15:35:52 15:35:52

A. The panel that I served on was a health care advisory panel that looked at strategic issues for Medtronic. 15:35:58 15:36:02 15:36:04

Q. Okay. So it had nothing to do with issues involving risk factors for cardiovascular disease or anything in that area? 15:36:08 15:36:12 15:36:12



A. No, sir. 15:36:14

Q. Which journals do you regularly read, medical 15:36:18

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

journals? 15:36:18

A. I regularly read the New England Journal of 15:36:26
Medicine, JAMA, Circulation, Journal of the American 15:36:36
College of Cardiology, The American Medical Journal, 15:36:46
The Atherosclerosis. There is one that I have left 15:37:00
out. Oh, and The Archives of Internal Medicine. 15:37:16

There is always a cadre of throw-away 15:37:20
journals that come through that I will scan, and 15:37:22
review journals that will point to particular 15:37:24
articles. 15:37:24

Q. I may not have asked you one question that I 15:37:28
intended to in respect to the economics and 15:37:34
billings. 15:37:34

Do you have any personal knowledge of what 15:37:40
other cardiology -- cardiologists or cardiology 15:37:42
groups in other parts of the state and not 15:37:44
Minneapolis bill Blue Cross as reasonable and 15:37:46
customary fees? 15:37:46

A. I do not. 15:37:48

Q. I asked you earlier if you had had -- let me ask 15:38:04
you one follow-up question on that. Would your 15:38:06
answer be true if I changed it to modify it to say 15:38:10
what other cardiology groups or cardiologists 15:38:14



throughout the state have billed the state of 15:38:16
Minnesota for health care services rendered? 15:38:18

A. (Witness indicating in the negative.) 15:38:20

Q. You would not know that? 15:38:22

A. I would not know that. 15:38:24

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Q. Any -- you furnished a list of studies and work that you had been involved in and it was, a few days after that, supplemented with some additional articles. 15:38:32 15:38:36 15:38:40 15:38:40

Are there any -- we talked about this no smoking thing and program, we talked about that, but is there any other reports, or so forth, that you intended to be attached to your report that were not? 15:38:44 15:38:46 15:38:50 15:38:52 15:38:52

A. No, there isn't, and I personally apologize for that, and I will review the list to make sure that anything that was meant for you to have, that I be sure that you have. I apologize for that. 15:38:56 15:39:02 15:39:08 15:39:10

Q. Well, we got, I think, supplemented and we had an opportunity to at least get those a few days before, and we didn't find much focus directly in the work that you had done in respect to issues involving smoking. 15:39:12 15:39:16 15:39:20 15:39:22 15:39:24

A. In the published work, no. 15:39:30

Q. Okay. I take it you don't have any unpublished 15:39:38



articles or anything that relate to smoking? 15:39:40

A. No. 15:39:40

Q. The comments that you make concerning smoking and whether or not persons ought to smoke are principally addressed within the confines of your preventive cardiology and your interface with patients and people you see in the biannual meetings 15:39:46 15:39:50 15:39:52 15:39:54 15:40:00

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

and to other physicians in your lectures? 15:40:04

A. Could you restate your question, please? 15:40:08

Q. I am going to have that read back. If it isn't clear, I will change it. 15:40:10 15:40:12

(Screen read.)

THE WITNESS: I am not exactly sure -- we need to break that down. The comments that you make concerning smoking, comments here, the comments -- I need a context for that, please. 15:40:40 15:40:44 15:40:48 15:40:54

BY MR. SHEPPARD:

Q. Let me give you that context. You have said a moment ago that we are talking about your publications on the matter of smoking and whether or not your publications address that, and you answered that question. 15:40:56 15:41:00 15:41:04 15:41:06 15:41:06

And this is a follow-up question because you said something about that is your published material, and so my purpose in asking this question 15:41:08 15:41:10 15:41:14



is to find out if there is any unpublished material. 15:41:16 15:41:16

A. Which I said no. 15:41:18

Q. Okay. And so then my question is, so your discussions of whether or not smoking is a desirable behavior is addressed, principally, to patients that you see, people who attend these -- or is an element of your preventive cardiology that you have talked about in respect to patients, people who attend these biannual meetings and physicians who 15:41:22 15:41:26 15:41:28 15:41:32 15:41:34 15:41:36 15:41:38

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

| | | | |
|---|---|---|---|
| 11 | | talk about preventive cardiology? | 15:41:42 |
| 12 | A. | I think what you are asking is who do I talk to | 15:41:46 |
| 13 | | about smoking and nonsmoking in my clinical practice | 15:41:52 |
| 14 | | and then the areas outside my clinical practice that | 15:41:54 |
| 15 | | we have defined today. | 15:41:56 |
| 16 | Q. | Right. I just want to make sure there isn't some | 15:41:58 |
| 17 | | other venue or forum where you are speaking on | 15:42:00 |
| 18 | | smoking that I didn't ask you about. | 15:42:02 |
| 19 | A. | No. | 15:42:02 |
| 20 | Q. | Now, in respect to this litigation, we have talked | 15:42:18 |
| 21 | | at some length about your expert report. And I want | 15:42:24 |
| 22 | | to ask you if, in respect to that report and the | 15:42:30 |
| 23 | | activities of other experts, did you directly | 15:42:34 |
| 24 | | furnish your report to any of the other experts for | 15:42:36 |
| 25 | | the plaintiff in this case? | 15:42:38 |



| | | | |
|---|---|---|---|
| 1 | A. | No, sir. | 15:42:38 |
| 2 | Q. | So do you have any way of knowing whether or not | 15:42:40 |
| 3 | | they relied upon your report in preparing their | 15:42:44 |
| 4 | | reports? | 15:42:44 |
| 5 | A. | No, sir. | 15:42:46 |
| 6 | Q. | You have told us you did not rely upon the reports | 15:42:48 |
| 7 | | of other experts in preparing your report? | 15:42:50 |
| 8 | A. | Yes, sir. | 15:42:52 |
| 9 | Q. | And you would be comfortable within your specialty | 15:42:56 |
| 10 | | of cardiology preparing your report without | 15:42:58 |
| 11 | | referencing what doctors in other fields talked | 15:43:00 |
| 12 | | about from their perspective? | 15:43:02 |

http://legacy.library.ucsf.edu/id/msm35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

A. Yes, sir. 15:43:02
Q. Because your report is prepared as an active practicing clinician in the field of cardiology and internal medicine? 15:43:04 15:43:08 15:43:10
A. Yes, sir. 15:43:10
Q. And that's what you are going to talk about at trial, that field of medicine? 15:43:12 15:43:16
A. Yes, sir. 15:43:18
Q. And in respect to this case, there have been some depositions taken of recipients of government-paid medical care. 15:43:20 15:43:26 15:43:28
Do you have any knowledge of the content of those depositions either by transmittal orally to 15:43:30 15:43:34



you or by reference to the deposition transcript or summary thereto? 15:43:38 15:43:38
A. No, sir. 15:43:40
Q. So the testimony that you have talked about today in your deposition and what you have prepared and we talked about today with respect to your report, all that is without reference or information about the specific recipients of government-paid health care that were deposed in this case? 15:43:42 15:43:44 15:43:48 15:43:50 15:43:58 15:44:00
A. I don't know whether to answer yes or no to that, but I have no knowledge of the content of those depositions. 15:44:04 15:44:06 15:44:06
MR. SHEPPARD: Okay. That's all I have. 15:44:06
MR. EISBERG: We will read and sign. 15:44:06
(Deposition concluded.)

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

DEPOSITION CORRECTION SHEET

CASE TITLE: TOBACCO LITIGATION
DEPOSITION OF: KEVIN J. GRAHAM, M.D.
DATE TAKEN: July 30, 1997

| PAGE | LINE | DESIRED CHANGES | REASON |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

http://legacy.library.ucsf.edu/id/nsn35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001

Deponent's Signature _____

Subscribed and sworn to before: _____, a Notary Public, County of _____, State of _____, on _____, 1997.

Return to: Kathy L. Soper
Ray J. Lerschen & Associates
620 Plymouth Building
12 S. Sixth Street
Minneapolis, MN 55402



STATE OF MINNESOTA )
) ss
COUNTY OF HENNEPIN )

BE IT KNOWN THAT I, KATHY L. SOPER, took the DEPOSITION of KEVIN J. GRAHAM, M.D.;

THAT, I was then and there a notary public in and for the County of Hennepin, State of Minnesota;

THAT, I exercised the power of that office in taking said deposition;

THAT, by virtue thereof I was then and there authorized to administer an oath;

THAT, said witness, before testifying, was duly sworn to testify to the truth, the whole truth, and nothing but the truth, relative to this action;

THAT, said witness reserved the right to read and sign the deposition;

THAT, said record is a true record of the testimony given by the witness;

THAT, I am neither attorney nor counsel for, nor related to or employed by any of the parties to this action in which this deposition is taken and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in this action.

WITNESS MY HAND AND SEAL this _____ day of _____, 1997.

_____

http://legacy.library.ucsf.edu/tid/nsn35a00/pdf
Source: http://www.tobaccoindustrydocuments.ucsf.edu/docs/yhxd0001

Kathy L. Soper, CSR, RPR, Notary Public
Hennepin County, Minnesota
My commission expires January 31, 2000.np

http://legacy.library.ucsf.edu/tid/nsm35a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/yhxd0001